REPORT

OF THE

INDIAN FAMINE COMMISSION

1898.



SIMLA:
NTED AT THE GOVERNMENT CENTRAL PRINTING OFFICE.

1898.

Re. 1-8 per cop

COMMISSION appointed to FORMULATE for FUTURE GUIDANCE the LESSONS which the FAMINE EXPERIENCE of 1897 has to teach.

Sir J. B. LYALL, G.C.I.E., K.C.S.I., *President.*

Surgeon-Colonel J. RICHARDSON.
Mr. T. W. HOLDERNESS, C.S.I., I.C.S.
Mr. T. HIGHAM, C.I.E.
RAI BAHADUR B. K. BOSE, C.I.E.
} *Members.*

Mr. H. J. MCINTOSH, I.C.S., *Secretary.*

सत्यमेव जयते

TABLE OF CONTENTS.

	Subject.	Page.
	CHAPTER I.	
	INTRODUCTORY.	
	Appointment of the Commission: its object	1
	Scope of the inquiry	*ib.*
	Duties of the Commission	2
	Approval of Her Majesty's Secretary of State	*ib.*
	Constitution of the Commission	*ib.*
	Method of inquiry	3
	The witnesses	*ib.*
	The evidence	4
	CHAPTER II.	
	NARRATIVES OF THE FAMINES AND SCARCITIES WHICH HAVE OCCURRED BETWEEN THE DATE OF THE FAMINE COMMISSION'S REPORT, 1880, AND THE FAMINE OF 1896-97.	
9	Introductory remarks	5
0	Apprehended scarcity in 1880, in the North-Western Provinces and other parts of India	*ib.*
1	Preparations in the North-Western Provinces	*ib.*
2	Scarcity in the Southern and South-Eastern Punjab in 1884	6
3	Summary of relief measures	7
4	Revenue suspensions and agricultural advances	8
5	Inferences from the Punjab scarcity	*ib.*
6	Distress in parts of Bengal in 1884-85	9
7	Relief measures in different districts	*ib.*
8	Relief measures in the Burdwan division	10
9	Cost of relief	11
0	Scarcity in parts of Madras in 1884-85	*ib.*
1	Tracts affected and character of scarcity	*ib.*
2	Apprehended scarcity in parts of the Central Provinces in 1886-87	12
3	Scarcity in Behar in 1888-89	*ib.*
4	Cost of relief	13
	Remarks of the Secretary of State for India	*ib.*

Para.	Subject.	Page.
26	Distress in the Tributary States of Orissa in 1889	14
27	The Ganjam famine of 1888-89	15
28	Relief up to June 1889	16
29	Lord Connemara's visit. Famine recognised	*ib.*
30	Cost of relief	17
31	Mortality in the Ganjam famine	*ib.*
32	Discussion of certain relief questions	18
33	Scarcity in the Kumaun and Garhwal districts of the North-Western Provinces and Oudh in 1890	*ib.*
34	Scarcity in the Kumaun division and in Dehra Dun in the North-Western Provinces and Oudh in 1892	19
35	Distress in the Madras Presidency in 1891 and 1892	20
36	Districts affected	21
37	Course of relief operations	*ib.*
38	Relief statistics	22
39	Cost of relief operations	*ib.*
40	Agricultural loans	23
41	Relief works and wages	*ib.*
42	The death-rate	24
43	Famine successfully managed	*ib.*
44	Distress in parts of the Bombay Deccan in 1891-92	*ib.*
45	Character of scarcity	*ib.*
46	Failure of relief works to draw	25
47	Reasons for this	*ib.*
48	Other relief measures	26
49	Cost of relief	27
50	Scarcity in Bengal in 1891-92	*ib.*
51	Extent and cost of relief measures	28
52	Comparison with the 1873-74 famine	*ib.*
53	System of relief works adopted	29
54	Further particulars as to distressed areas	30
55	Character of public works undertaken	31
56	Gratuitous relief	*ib.*
57	Death-rate	*ib.*

सत्यमेव जयते

Para.	Subject.	Page.
58	Scarcity in Upper Burma in 1891-92	31
59	Character of relief works undertaken	32
60	Discussions as to wages and piece-work	33
61	Cost of relief measures	35
62	Scarcity in Ajmere-Merwara, 1890-92	36
63	First period of relief	*ib.*
64	Second period	37
65	Character of the relief works	*ib.*
66	Discussions as to relief wages	38
67	Piece-work	39
68	Gratuitous relief	*ib.*
69	Cost of relief	40
70	Wage rate too liberal	*ib.*
71	Was relief given excessive ?	41
72	Comparative table showing extent and cost of famines described above	42
	CHAPTER III.	
	DIFFERENCES IN THE PRESCRIPTIONS OF THE PROVINCIAL FAMINE CODES.	
73	Duty of the Commission to examine the differences in the prescriptions of the famine codes	43
74	Origin of the existing codes	*ib.*
75	The differences in the various codes not very material	45
76	General scheme of a famine code	*ib.*
77	Obligations of local Governments and their officers in ordinary times	*ib.*
78	Conduct of relief measures. Duties of superior revenue and engineer officers during famine	46
79	Circle organization	48
80	Gratuitous relief	*ib.*
81	Relief works	*ib.*
82	Wages or rations	49
83	Poor-houses	*ib.*
84	Kitchens	50
85	Other measures of relief	*ib.*
86	Protection of cattle	51
87	Duties of the police	*ib.*

Para.	Subject.	ge.
88	Duties of Medical Officers	51
89	Accounts	52
	CHAPTER IV.	
	THE MATTERS IN WHICH THE PRESCRIPTIONS OF THE PROVINCIAL FAMINE CODES HAVE BEEN DEPARTED FROM.	
90	Introductory remarks	53
91	Precedence given to the North-Western Provinces and Oudh	*ib.*
	PART I.	
	North-Western Provinces and Oudh.	
92	Bundelkhand famine of 1896	*ib.*
93	Transfer of control to the Department of Public Works	54
	New system of executing small works	*ib.*
94	Deputation of subordinate revenue officials as officers in charge	*ib.*
95	Poor-houses and village gratuitous relief	55
96	Policy adopted in anticipation of the monsoon rains	*ib.*
97	Amount of the gratuitous dole not discussed	56
98	The wages paid on relief works	*ib.*
99	The famine operations of 1896-97	57
100	Rules for the management of large relief works	58
101	Introduction of systems of payment by results	60
102	Policy adopted when the rains set in	61
103	Rules for the execution of small village works	62
104	Rules for the organization and administration of village gratuitous relief	*ib.*
105	Amount of the gratuitous relief dole	63
106	Fixation of a numerical standard limit of gratuitous relief	64
	Bengal.	
107	The relief organization	65
108	The nature of the relief works	66
109	Rigid enforcement of tasks	67
110	Gratuitous village relief	68
111	Amount of the village gratuitous dole	*ib.*
112	Kitchens	69

Para.	Subject.	Page.
	The Central Provinces.	
113	The period prior to September 1896	69
114	Relief operations from September 1896	*ib.*
115	Relief works	70
116	Gratuitous village relief	72
117	Organization of village relief	73
118	Poor-houses	74
119	Kitchens	*ib.*
	Madras.	
120	Commencement of operations. The Deccan	*ib.*
121	Relief works placed under the Public Works Department and instructions issued by the local Government	75
122	Liberality of the concessions allowed to workers in March	76
123	Criticism of the early operations	77
124	Criticism of the early operations—*continued*	79
125	Operations in the Northern Circars	*ib.*
126	Gratuitous relief	80
127	Organization of village relief	81
128	The relief of weavers	*ib.*
129	Relief of hill tribes	82
130	Indirect methods of relief	*ib.*
131	Results of the Government orders of 30th March 1897	83
	Bombay.	
132	The measures adopted; first stage	*ib.*
133	The relief works	85
134	Concentration of relief works at the commencement of the rains	86
135	Relief in the hill taluks	*ib.*
136	Results of the policy of concentration and strictness	87
137	Gratuitous relief	*ib.*
138	Poor-houses	88
139	The weaving classes	*ib.*
140	Suspension and remission of land revenue	*ib.*
141	Operations of the Forest Department	89
142	Policy of strict adherence to the code	90

Para.	Subject.	Page.
	Punjab.	
143	Commencement of operations	90
144	Conduct of the relief works	91
145	Wages of relief workers	92
146	The relief of dependants	93
147	Numbers of workers and dependants	*ib.*
148	Village gratuitous relief	94
149	Poor-houses and indirect relief	*ib.*
150	Close of the operations	95
151	The degree of distress existing in the Punjab	*ib.*
	Berar.	
152	Commencement of operations	*ib.*
153	Conduct of relief works	96
154	Relief works in the Melghat	97
155	Gratuitous relief	*ib.*
156	Gratuitous relief in the Melghat	*ib.*
157	Indirect relief	98
	Burma.	
158	Commencement of operations	*ib.*
159	Extensive emigration	99
160	The relief works	*ib.*
161	Management of the Public Works Department	*ib.*
162	Sunday rest and allowances to dependants	100
163	Piece-work	*ib.*
164	Gratuitous relief and other measures	101
	PART II.	
	Particular deviations from the prrscriptions of the Codes in regard to the selection, organization, and management of relief works.	
165	Questions to be considered in this section	*ib.*
	(*a*) *Selection of relief works; residence and distance tests.*	
166	Relief works in the North-Western Provinces	102
167	Relief works in the Central Provinces	103
168	Relief works in Bengal	*ib.*

Para.	Subject.	Page.
169	Relief works in the Punjab	104
170	Relief works in Bombay	*ib.*
171	Relief works in Madras	105
172	Relief works in Burma	106
173	Average area and population served by relief works in different provinces	*ib.*
174	Origin of the code direction that small works should be opened in the earlier stages of scarcity	*ib.*
175	Small works insufficient for relief purposes	107
176	Proximity of the works to the homes of the labourers in Madras . .	108
177	The distance test in Bombay	*ib.*
178	General policy as to large and small works	109
179	Utilization of the agency of village landowners and headmen on village works	110
	(*b*) *The code system of task-work.*	
180	Code system of task-work	111
181	North-Western Provinces rules of December 1896	112
182	Task work classification initiated in the North-Western Provinces .	*ib.*
183	Task-work wages initiated in the North-Western Provinces . .	*ib.*
184	System of tasking under the modified system	113
185	Penalties for short work	*ib.*
186	Variations in modified task-work system in Bengal and the Central Provinces	*ib.*
187	Task-work in Bombay	114
188	Task-work in the Punjab	*ib.*
189	Task-work in Madras. Classification and wages	115
190	The task in Madras	*ib.*
191	Task-work in Burma	116
192	Objection to the Code system of classification	*ib.*
193	Further objections	*ib.*
194	Digger and carrier classification	117
	(*c*) *The system of payment by results.*	
195	Piece-work not provided for in the Codes	118
196	Payment by results without the restriction of a minimum wage . .	*ib.*
197	Distinction between famine and scarcity districts in the North-Western Provinces	119

Para.	Subject.	Page.
198	Modified intermediate system in the North-Western Provinces . .	119
199	Piece-work in the Gorakhpur division	120
200	Payment by results in Bengal	*ib.*
201	Piece-work on the Tribeni Canal	*ib.*
202	Other piece-work in Bengal	121
203	Payment by results in the Central Provinces	*ib.*
204	Piece-work in Bombay	122
205	Piece-work in the Punjab	*ib.*
206	Piece-work in Madras	123
207	Piece-work in Burma	*ib.*
208	Advantages and disadvantages of the modified intermediate system of the North-Western Provinces	*ib.*
209	Limited piece-work in Gorakhpur	124
210	The Blackwood system in Behar	*ib.*
211	Unlimited piece-work	125
212	The Bombay system of limited piece-work	126
213	Work under contractors	127
214	Later system of payment by results in the Central Provinces . .	128
215	General conclusion as to payment by results	*ib.*
	(*d*) *Treatment of Dependants.*	
216	Prescriptions of the North-Western Provinces Code relating to dependants	129
217	Deviations from the above that occurred in practice	*ib.*
218	Dependants in Bengal	*ib.*
219	Dependants in the Central Provinces	130
220	Dependants in Bombay	*ib.*
221	Dependants in Madras	*ib.*
222	Dependants in the Punjab	*ib.*
223	Dependants in Burma	*ib.*
224	Summary regarding treatment of dependants	131
	(*e*) *The relations of Civil and Public Works officers in connection with the management of relief works.*	
225	Recommendations of the Famine Commissioners	*ib.*
226	Reasons why full effect has not been given to these recommendations	132

Para.	Subject.	Page.
227	Duties of Public Works officers as defined in the Code of the North-Western Provinces	132
228	Actual practice in the North-Western Provinces	133
229	Duties of Public Works officers as defined in the Bengal Code	134
230	Actual practice in Bengal	135
231	Duties of Public Works officers in the Central Provinces	136
232	Public Works officers in the Punjab	*ib.*
233	Public Works officers in Bombay	137
234	Public Works officers in Madras	138
235	Management of relief works by Public Works officers under direct control of Civil officers	140
236	Management of relief works by the Public Works Department	141
237	General recommendation	*ib.*
238	Conclusion	142
	CHAPTER V.	
	THE DEGREE OF SUCCESS THAT HAS ATTENDED THE MEASURES ADOPTED.	
239	Introductory remarks	143
	PART I.	
	North-Western Provinces and Oudh.	
240	Bundelkhand famine of 1896	*ib.*
241	Special measures to induce people to leave the works in June 1896	144
242	Same policy adopted in 1897	*ib.*
243	Objections on general grounds to this policy	145
244	Reduction of wage scale	*ib.*
245	The modified intermediate system	146
246	Organization of town and village relief	147
247	Examination of mortality statistics	148
248	Suspensions and remissions of revenue	149
249	General conclusions arrived at by the Commission	*ib.*
	Bengal.	
250	The area affected	150
251	Prompt measures in North Behar	*ib.*
252	Success of the measures introduced in North Behar	151
253	Delay in commencing operations in Shahabad	*ib.*

Para.	Subject.	Page.
254	Relief measures adequate in the Bhagalpur division	152
255	The Chota Nagpur division	*ib.*
256	The importation of grain by Government into Palamau	153
257	The degree of success in Chota Nagpur not so conspicuous as in Behar	154
258	Adequate relief given in other parts of Bengal	*ib.*
259	Insufficiency of the wage scale	*ib.*
260	The low gratuitous grain dole	155
261	Examination of the mortality statistics	*ib.*
262	General conclusion	156
	Central Provinces.	
263	Commencement of distress in the Central Provinces	*ib.*
264	Falling off of rabi cropped area	*ib.*
265	Prices between 1894 and 1896	157
266	Mortality statistics between 1893-94 and 1895-96	158
267	Review of the scarcity of 1893-94	*ib.*
268	Small numbers on relief in 1894	159
269	The agricultural year 1894-95	*ib.*
270	Measures adopted in 1895	160
271	Insufficiency of the measures adopted in 1895	161
272	The agricultural year 1895-96	*ib.*
273	Line of action adopted in 1896	*ib.*
274	Inadequacy of relief afforded in 1896	162
275	Conclusion arrived at by Commission	164
276	More relief should have been given in 1895 and in 1896	*ib.*
277	Evidence confirming the Commission's conclusion	*ib.*
278	Desirability of starting relief operations promptly	165
279	The agricultural year 1896-97	*ib.*
280	Plan of relief operations	166
281	Village relief should have been organized at an earl stage	167
282	Advantages of starting village relief organization	*ib.*
283	The village relief dole	*ib.*
284	Scale of wages on relief works	*ib.*
285	Number of relief workers and dependants	168

Para.	Subject.	Page.
286	Reasons for introducing the intermediate system	169
287	Intermediate system introduced in almost all districts	*ib.*
288	Dislocation of relief occasioned by change of system	*ib.*
289	Introduction of new system of payment by results	170
290	Exception taken by the Government of India to the payment by result rules	*ib.*
291	Changes of system to be avoided when distress is acute	171
292	Suspensions and remissions of land revenue	*ib.*
293	Examination of mortality returns	172
294	Examination of mortality returns—*continued*	173
295	Examination of mortality returns—*continued*	174
296	Special inquiry as to the heavy mortality	*ib.*
297	Degree of accuracy of vital statistics	175
298	Reliable figures of deaths from starvation not available	*ib.*
299	General conclusion arrived at by the Commission	*ib.*
	Madras.	
300	Affected area and causes of the distress	176
301	Approaching distress promptly discerned	*ib.*
	The measures taken	
302	The growth of the numbers on relief and the results of the concessions allowed by the Government	*ib.*
303	Large measure of relief afforded	177
304	Gratuitous relief	178
305	Poor-houses	*ib.*
306	Relief to weavers and jungle tribes	*ib.*
307	Indirect relief	179
308	Loss of cattle	*ib.*
309	Examination of vital statistics	*ib.*
310	General conclusion arrived at by the Commission	181
	Bombay.	
311	Area affected and the cause of the distress	*ib.*
312	Alleged deaths from starvation	*ib.*
313	Examination of mortality statistics	182
314	Examination of the policy of concentrating labour	*ib.*
315	Successful gratuitous relief administration	184

Para.	Subject.	Page.
316	Hill tribes	184
317	The relief of weavers	*ib.*
318	Loss of cattle	185
319	Loans and advances	*ib.*
320	Small suspensions and remissions of land revenue	186
321	General conclusions arrived at by the Commission	*ib.*
	Punjab.	
322	The area affected	*ib.*
323	Commencement of operations	187
324	Gratuitous relief	188
325	Measures of indirect relief	*ib.*
326	Loss of cattle	*ib.*
327	Success of the measures adopted	*ib.*
328	Examination of vital statistics	189
329	Examination of vital statistics—*continued*	190
	Berar.	
330	Cause of the distress	191
331	The measures adopted	192
332	Mortality statistics	193
333	The Melghat taluk	*ib.*
	Burma.	
334	Commencement of the distress	194
335	Migration of the people	*ib.*
336	The measures adopted	195
337	Successful result of the operations	*ib.*
338	Indebtedness of village headmen and loss of cattle	*ib.*
	PART II.	
	DEGREE OF SUCCESS WITH REGARD TO ECONOMY.	
339	The magnitude and cost of the relief operations of 1896-97	196
340	General conclusion as to the economy of the measures	197
341	Difficulty of gauging degree of distress	198
342	Difficulty of gauging degree of distress—*continued*	199
343	Comparisons with former famines difficult	200

Para.	Subject.	Page.
344	The statistical tests applied to famine relief operations . . .	201
	The numbers relieved in each province.	
345	Figures showing total amount of relief given in each province . .	*ib.*
346	High ratios in the North-Western Provinces and Oudh and in Madras	202
347	Ratio in the Central Provinces and elsewhere	203
348	General conclusion as to the result of the numerical test . . .	*ib.*
349	Expenditure on indirect relief	*ib.*
	The relative amount of gratuitous relief in the several Provinces.	
350	The value of this test	204
351	Large volume of gratuitous relief explained	208
352	High proportion of gratuitous relief in Bengal	*ib.*
353	High proportion of gratuitous relief in the North-Western Provinces .	209
354	High proportion of gratuitous relief in the Central Provinces . .	*ib.*
355	Proportion of gratuitous relief in the other provinces . . .	210
356	Different methods of giving gratuitous relief	*ib.*
357	Poor-houses	*ib.*
358	Comparison of detailed figures for particular districts . . .	211
	The expenditure on relief and the incidence per unit relieved.	
359	Difficulty of effecting a comparison of the wage-rate . . .	*ib.*
360	Analysis of wage-rates	212
361	Low wage-rate in some provinces	213
362	High rate to piece-workers in Behar	*ib.*
363	Wage-rate in other provinces	*ib.*
364	Wage-rate in Burma	214
365	Comparison of cost of gratuitous relief	*ib.*
366	Dependants	*ib.*
367	Grain allowance of dependants in the different provinces . . .	215
368	Home relief	*ib.*
369	Poor-houses and kitchens	216
370	Weavers	217
	General incidence of cost of relief per 1,000 units relieved.	
371	General cost of relief in each province	*ib.*
372	Variations in the general cost of relief in the different provinces .	218

Para.	Subject.	Page.
373	Variations in the cost of direct relief	218
374	Comparison of cost of relief in the late famine with scale recommended by the Commission	219
375	Deviations within the margin recommended by the Commission	220
376	Average expenditure on relief per 1,000 units neither inadequate nor excessive	*ib.*
	Expenditure on special establishments and miscellaneous charges.	
377	Incidental charges incurred	221
378	Special establishments	*ib.*
379	Other miscellaneous expenditure	222
380	Basis for estimating the cost of famine relief in future	*ib.*
	Ratio of actual expenditure to value of work done at normal rates.	
381	Method of making the comparison	223
382	Bengal	*ib.*
383	North-Western Provinces	224
384	Punjab and Central Provinces	*ib.*
385	Madras	*ib.*
386	Bombay	*ib.*
387	Burma	225
388	Comparison of these ratios	*ib.*
389	Considerations to be kept in view in making this comparison	*ib.*
	The extent to which the works executed by relief labour are of permanent utility.	
390	Classification of relief works	226
391	Attempt to estimate the real value of the works executed in each province	227
392	Bengal	*ib.*
393	North-Western Provinces	228
394	Punjab	*ib*
395	Central Provinces	229
396	Madras	*ib.*
397	Bombay	230
398	Berar	231
399	Burma	*ib.*
400	Local or village works	*ib.*

Para.	Subject.	Page.
401	Comparative table of effective value of work done	232
402	Sixty per cent. of the expenditure non-effective	*ib.*
403	Variations in the provincial percentages	233
404	General conclusion as to the success of the operations	234
	CHAPTET VI.	
	RECOMMENDATIONS AS TO MEASURES AND METHODS OF WORKING.	
405	Introductory remarks	235
	SECTION I.	
	RELIEF WORKS.	
	(*i*) *Programmes of works.*	
406	Recommendations of the Famine Commissioners regarding large works	*ib.*
407	Public and village works	241
408	Programmes of public works	*ib.*
409	Programmes of irrigation works	242
410	Improvements of irrigation works	243
411	New irrigation works	*ib.*
412	Railway works	244
413	Programmes of village works	*ib.*
	(*ii*) *Test works.*	
414	Opening and conduct of test works	245
415	Should if possible be under professional supervision	*ib.*
	(*iii*) *Class of relief works to be opened.*	
416	Class of relief works to be first opened	246
417	Advantages of public as compared with village works at first stage of operations	*ib.*
418	Ordinary public works should not be carried out on contract system after distress has been declared	247
419	Expediency of utilizing railways under construction as relief works	*ib.*
420	Exception to the rule for converting ordinary public works into relief works	248
421	Advantage of expanding ordinary public works outside distressed districts in time of famine	249
	(*iv*) *Organization and direction of relief works.*	
422	Agency by which relief works should be carried out	250
423	Responsibilities of officers of the Public Works Department	*ib.*

Para.	Subject.	Page.
424	Size of Public Works charges	251
425	Management of village works	252
426	Officers in charge of relief works	*ib.*
427	Work Agents	253
428	Arrangements for charge of works as the number of charges increase	*ib.*
	(*v*) *Classification and wage-scale of daily labourers.*	
429	Recommendations of the Famine Commissioners as to classification and wages of labourers	*ib.*
430	Summary of the Famine Commission's recommendations	255
431	Full and minimum rations of the provisional code	*ib.*
432	Classification of labourers under the provisional code	256
433	Summary of provisions of provisional code as to classification and wages	257
434	Classification prescribed in Government of India Circular Resolution of March 1892	258
435	Resolution of August 1893	259
436	Grain wage scale of Resolution of August 1893	260
437	Adoption of foregoing wage scale in all provincial codes	261
438	North-Western Provinces system of classification	*ib.*
439	Recommendations as to classification of workers in future	262
440	Special class	263
441	Relief labourers in receipt of a daily wage irrespective of task	*ib.*
442	Dependants and nominally tasked workers	264
443	Abolition of sexual sub-divisions within the same class	*ib.*
444	Juvenile adults	265
445	Summary of proposed classification	266
446	Wages to relief workers in different provinces	267
447	Possibility of a standard ration wage to be applicable in all provinces	268
448	Possible exception in the case of Burma	*ib.*
449	Explanation of differences between the wages paid in Madras and the North-Western Provinces	269
450	Diggers and carriers belong naturally to classes A and C respectively of the present codes	*ib.*
451	High wage in Madras principally due to the system of classification adopted	270
452	Principles on which it is proposed to fix a wage scale	271

Para.	Subject.	Page.
453	Grain value of the full and minimum wage	271
454	Conversion of grain into flour	272
455	Proposed grain wages for all classes	*ib.*
456	Wage scale in Indian measure	273
457	Cash daily wage to be calculated in full pice	274
458	Necessity for deviations from the standard wage-scale	275
459	Limit of permissible deviation from the standard wage-scale	276
460	General remarks on proposed classification and wage-scale	277
	(vi) The code system of task-work and systems of payment by results, tasking, rest-day allowances, relief works accounts, etc.	
461	Payment by results	278
462	The standard task	279
463	The task unit	280
464	Fixing rates for piece-work	*ib.*
465	Rest day allowances or Sunday wage	*ib.*
466	Relief to new comers	*ib.*
467	Returns and accounts	281
	SECTION II.	
	GRATUITOUS RELIEF, AND THE RELIEF OF ADULT DEPENDANTS AND NON-WORKING CHILDREN OF WORKERS.	
468	The view taken by the Famine Commission	282
469	The classes eligible for gratuitous relief	283
470	The classes enumerated embrace all deserving objects	284
471	Two exceptional cases when an expansion of gratuitous relief is permissible	*ib.*
472	Necessity for early organization of village relief	285
473	Fixation of a numerical standard limit of gratuitous relief not desirable	*ib.*
474	The gratuitous relief dole	286
475	Non-working children and adult dependants of relief workers	*ib.*
476	Preference should as a rule be given to kitchens	*ib.*
477	Relief of dependants under systems of payment by results	287
478	Poor-houses	*ib.*
	SECTION III.	
	THE ABORIGINAL HILL AND JUNGLE TRIBES.	
479	Relief of hill and jungle tribes should be a specialized branch of relief organization	288

Para.	Subject.	Page.
480	The aboriginal races in the Central Provinces and their characteristics	288
481	Suggestions of the Central Provinces' officers	290
482	Aboriginal tribes in the Berars and measures taken to relieve them	291
483	Aboriginal tribes and measures taken to relieve them in Bombay	292
484	Aboriginal tribes and measures taken to relieve them in Madras	*ib.*
485	Aboriginal tribes and measures taken to relieve them in Bengal	293
486	Recommendations. Classification	294
487	Class of works and management	295
488	Measures to be taken in the rains	296
489	Reduced grain dole and wage permissible	*ib.*
490	A strong and sympathetic establishment required	*ib.*
491	The necessity of having all relief measures fully organized before the rains commence	297
	SECTION IV.	
	SPECIAL RELIEF TO WEAVERS.	
492	The weaver population	*ib.*
493	Famine seriously depresses the weaving trade	*ib.*
494	Opinion of Famine Commission as to how weavers should be relieved	*ib.*
495	Economic advantage of trade-relief to weavers	298
496	Hardship of ordinary relief when applied to weavers	*ib.*
497	Consideration of the objections against the adoption of a system of trade-relief to weavers	*ib.*
498	Consideration of objections—*continued.*	299
499	How the special establishment necessary for trade-relief operations should be arranged for	30
500	Trade-relief properly conducted is not objectionable	*ib.*
501	Existing codes on special relief to weavers	*ib.*
502	Special relief operations in Madras	301
503	Special relief operations in the Central Provinces	*ib.*
504	Special relief operations in Bombay	302
505	Special relief operations in Bengal	303
506	Relief given to weavers from the Charitable Fund	*ib.*
507	The systems followed in the different provinces compared	304
508	Recommendations	*ib.*

Para.	Subject.	Page.
509	Under what circumstances trade relief should have preference over ordinary relief	305
510	Municipal Committees engaging in trade relief to weavers . . .	*ib.*
511	Charitable Relief Fund to be linked with State trade-relief organizations	306
	SECTION V.	
	UTILISATION OF PRIVATE CHARITABLE CONTRIBUTIONS.	
512	Ample scope for private charity outside State relief	*ib.*
513	Definition of objects to which private charity may be applied as auxiliary to State relief	*ib.*
514	Principle to be kept in view in organizing the distributing agency .	307
515	Response to the appeal to private charity and the organization for its distribution	308
516	Success of the organization in effecting judicious distribution of the fund	*ib.*
517	Summary of the various modes of relief as actually employed by the fund committees	*ib.*
518	Receipts and expenditure of the fund	310
519	Constitution of the unspent balance of the fund into a trust-fund for relief of distress in future famines	*ib.*
520	Receipts and expenditure of the provincial committees . . .	311
521	Details of provincial expenditure under the four prescribed heads .	*ib.*
522	State expenditure and charitable fund expenditure compared . .	312
523	Loans and gifts to agriculturists from State and charitable funds respectively	*ib.*
524	Number of persons relieved from the fund	313
525	Operations of the fund, the good it has done and the gratitude it has evoked	*ib.*
526	Reasons for suggesting a modification of the present statement of objects of the fund	314
527	Revised definition of the objects of the fund suggested . . .	316
528	Remarks as to particular objects to which the charity fund was applied	317
	SECTION VI.	
	ORDER AND SUCCESSIVE USE OF THE VARIOUS METHODS OF RELIEF.	
529	Summary of general recommendations under this head . . .	318
	Summary of recommendations.	
530	Summary of recommendations as to methods and measures of working	319

Para.	Subject.	Page.
	CHAPTER VII.	
	OTHER OPINIONS OR RECOMMENDATIONS.	
531	Introductory remarks	324
	SECTION I.	
	THE FAMINE RELIEF AND INSURANCE GRANT.	
532	The Famine Relief and Insurance Grant	*ib.*
533	Measures taken for the proper carrying out of the scheme . .	325
534	Working of the Famine Relief and Insurance scheme since 1881-82 .	*ib.*
535	Apparent reasons for short appropriations	327
536	Opinion as to the maintenance of the Famine Insurance Grant at the full amount originally fixed	328
537	Budget estimates to include the full grant for famine relief and insurance	329
538	Amount to be devoted to protective works. Irrigation in preference to railway works recommended	*ib.*
539	Expenditure and the loss of revenue attributable to famine outside the account	330
	SECTION II.	
	IRRIGATION.	
540	General recommendations of the Famine Commissioners . . .	331
541	Classification of irrigation works.	332
542	Productive works. Capital outlay since 1879-80	333
543	Extension of irrigated area since 1878-79	*ib.*
544	Return on the capital outlay	*ib.*
545	Surplus revenue derived from works after meeting all interest charges	334
546	Number of productive irrigation works	*ib.*
547	Protective works. Capital outlay on protective works. . . .	335
548	Areas irrigated by protective works	336
549	Minor works. Importance of minor irrigation works	*ib.*
550	Expenditure on minor works since 1879-80	337
551	Increase in area irrigated by irrigation works of all kinds since 1878-79	*ib.*
552	General results of the extension of irrigation since 1880 . . .	338
553	Extensions of irrigation in the Punjab (Cis-Sutlej)	339
554	Extensions in the Punjab (Trans-Sutlej)	*ib.*

Para.	Subject.	Page.
555	The Chenab Canal	339
556	Attraction of population to uncultivated tracts on introduction of irrigation	340
557	Other extensions of irrigation in the Punjab	*ib.*
558	Extension of irrigation in the North-Western Provinces	341
559	The Sarda Canal	*ib.*
560	The Betwa and Ken Canals in Bundelkhand	342
561	The North Behar Canal suggested by the Famine Commissioners has not been constructed	343
562	Extensions of Orissa Canals	*ib.*
563	Other Canals in Bengal	344
564	Major irrigation works in the Bombay Deccan and in Gujarat	*ib.*
565	Minor works in the Bombay Deccan and Gujarat	345
566	Prospects of irrigation works in the Bombay Deccan and Gujarat	*ib.*
567	Urgent necessity for irrigation works in the Bombay Deccan	346
568	Irrigation in Sind	*ib.*
569	Recommendations of the Famine Commissioners relating to Madras irrigation works	347
570	The Kurnool-Cuddapah Canal	*ib.*
571	Petty irrigation works in Madras	*ib.*
572	Future extensions of irrigation	348
573	Possible extensions in the Punjab	*ib.*
574	Financial prospects of the Punjab projects	349
575	Extension of irrigation in Sind	*ib.*
576	New irrigation works in Upper Burma	350
577	Active prosecution of new productive irrigation works recommended	*ib.*
578	Reasons for the policy advocated	351
579	Financial results that may be anticipated	*ib.*
580	New protective irrigation works	352
581	Water-supply in State grazing grounds	353
582	Advances for sinking wells	354
583	Extensions of minor works	*ib.*
	SECTION III.	
	THE GRAIN TRADE, FOOD SUPPLY, AND THE POWER OF RESISTING FAMINE.	
584	Opinion of the Famine Commissioners with regard to Government intervention in the matter of the food supply	355

Para.	Subject.	Page.
585	Policy laid down by the Famine Commissioners followed during the recent famine	356
586	Enquiries made do not affect the conclusion arrived at by the Commission of 1880	*ib.*
587	Estimated annual food-grain production and surplus	357
588	High prices of food-grains throughout India during the recent famine	359
589	Tendency to equalization of prices throughout India due to railway extensions	*ib.*
590	The import and export trade of India	360
591	Resources and resisting power of the people in times of famine .	*ib.*
592	General conclusion arrived at by the Commission	363
	SECTION IV.	
	SUBJECTS OF NATIVE STATES.	
593	The area affected in native states	364
594	The instructions to the Commission do not extend to native states .	*ib.*
595	Matters connected with native states into which we have inquired .	365
596	Treatment of subjects of native states in British districts . .	*ib.*
	Remarks by Mr. Holderness	367

REPORT OF THE INDIAN FAMINE COMMISSION 1898.

CHAPTER I.

INTRODUCTORY.

Appointment of the Commission: its object.

Our Commission was appointed with the approval of Her Majesty's Secretary of State under the orders of His Excellency the Governor General in Council contained in the Resolution of the Government of India, Department of Revenue and Agriculture, No. 35—245—26 (Famine), dated the 23rd December 1897. The object of the Commission was to examine and compare the systems of famine relief sanctioned for the several provinces, and the measures actually employed during the recent famine; to inquire into the degree of success attained by those measures; and to record the lessons and recommendations suggested by the experience gained while the facts were fresh in the minds of the witnesses.

Scope of the inquiry.

2. The following observations taken from the Resolution appointing the Commission may be usefully quoted, as they give a full description of the object and scope of the inquiry directed.

"The organisation for the relief of distress which has been elaborated in each province on the lines laid down by the Famine Commission of 1878, and embodied in the Provincial Famine Codes, has now, for the first time in most of the affected provinces, been practically tested on a large scale; and on the whole it has stood the trial well. But while the experience of the past year has suggested no alterations in the main lines which were prescribed as the basis for the administration of relief, it has been found necessary, in almost every province, to depart in some not unimportant respects from the detailed provisions of the local Code in order to meet the differing conditions of distress. And the direction which these departures have taken has varied from province to province.

"The experience thus gained will be of incalculable value when India is next face to face with famine. But in order to render it available for future guidance, it is essential to collect and collate it while the facts are fresh, and to embody it in amended Famine Codes. It is no doubt the case that, while the broad lines upon which relief is to be administered may properly be prescribed for the whole of India, variations in detail will be necessary under the varying conditions to be found in the several provinces, and that each province must retain its individual Code. But it is certain that almost every province will have something to learn from the experience of others, and it will be advisable to take special measures to collate that experience; and especially, where the cost of relief and the numbers relieved have been larger than elsewhere in proportion to the acuteness of the distress and the population affected by it, to enquire to what causes the excess was due, and whether an adherence to the lines followed in other provinces might not, on a future occasion, reduce the cost without diminishing the efficacy of the measures to be adopted.

"The enquiry will be far narrower in scope than that entrusted to the larger Famine Commission, which was appointed with such signal advantage in 1878. Twenty years ago no general famine policy had been enunciated by Government, the experience gained in Behar in 1873 and in Southern India in 1877 from what were virtually experiments in relief, was all that was available, and the Commission had to formulate a policy and to evolve general principles for guidance in the actual presence of famine. But this was, perhaps, the least important portion of their duties. They were also bidden to consider and

advise upon measures of the widest possible nature, such as might 'diminish the severity of famines, or place the people in a better condition for enduring them.' The programme that was laid down by them accordingly under the head of 'Measures of protection and prevention' has since then been actively prosecuted; and though much still remains and always will remain to be done, the omissions and defects are fully recognised, and are gradually being dealt with as opportunity offers, and no further general inquiry of this nature is either necessary or advisable. So, too, the experience of the past year has shown that the general lines of policy laid down in 1878 stand in no need of reconsideration. It is the details of the scheme of relief that require to be revised. But in such a matter details are hardly less important than principles."

Duties of the Commission.

3. The instructions to the Commission were expressed in the following terms :—

"The duties of the Commission will therefore be—

to examine the manner in which the provisions of the Famine Codes of the several provinces differ from one another, and in which their prescriptions have been departed from;

to inquire into the degree of success which has in each case attended the measures adopted, considered primarily with regard to the relief of distress and the saving of human life, and secondarily with regard to economy;

to advise as to the measures and methods of working which seem likely to prove most effective in these two respects; and

to make any inquiries and record any recommendations or opinions which it is thought will prove useful in the case of future famines.

It is to be understood that the object of the inquiry is to furnish guidance for the future; and that it is concerned with the past, only in so far as may be necessary to that end."

Approval of Her Majesty's Secretary of State.

4. In a despatch No. 229, dated the 23rd December 1897, Her Majesty's Secretary of State informed the Government of India that he fully accepted the view that the main principles of famine administration, as laid down by the Famine Commission and embodied in the provincial famine codes, are settled and need not be re-opened, but that he was confident that valuable results would be gained by collating and reviewing the experience of relief administration in the several provinces. Regarding the instructions which it was proposed to issue to our Commission, the Secretary of State observed :—

"I attach much importance to the second head of the inquiries to which you have drawn the attention of the Commission; and I am glad to observe that under the fourth head you have encouraged the Commission to make such general or special recommendations as they may see fit on the subject of famine relief administration."

Constitution of the Commission.

5. The Commission appointed under these orders consisted only of a President, four Members and a Secretary; but in order to assist us in our inquiries and to see that local points or questions were not overlooked or misunderstood, each local Government was directed to attach to the Commission as a temporary Member, while we were actually making inquiries within its province, a selected officer who was personally acquainted with the practical working of the system of relief adopted. In accordance with these instructions the following representatives of local Governments sat with us and took part in our inquiries while in the province :—

Bengal.—Mr. J. A. Bourdillon, I.C.S., C.S.I., Officiating Commissioner of the Patna Division.

Madras.—Mr. W. J. H. LeFanu, I.C.S., Member, Board of Revenue, and late Famine Commissioner.

Bombay.—Honourable Mr. J. Monteath, I.C.S., C.S.I., Chief Secretary to Government.

Central Provinces.—1. Mr. R. H. Craddock, I.C.S., on special duty with the Chief Commissioner (at Nagpur).

2. Mr. A. D. Younghusband, I.C.S., Commissioner of the Chhattisgarh Division (at Raipur).

3. Mr. J. B. Fuller, I.C.S., C.I.E., Commissioner of the Jabalpur Division (at Jabalpur).

North-Western Provinces.—Mr. T. Stoker, I.C.S., C.S.I., Officiating Chief Secretary to Government.

Punjab.—Mr. M. W. Fenton, I.C.S., Revenue Secretary to Government.

Method of inquiry.

6. The Commission was formally constituted on the arrival of Sir James Lyall and Surgeon-Colonel Richardson from England, and held its first sitting at Calcutta on the 10th January 1898. Our first business was to settle the general method of our inquiry, to arrange for a tour through the provinces which had been affected by the recent famine and determine the places in each province at which it was desirable we should hold our sittings, to issue instructions to local Governments and Administrations for the production before us of the best witnesses who could assist us in our investigations and of such documents already on record as would be of use to us, and to compile a series of interrogations for the guidance of the witnesses. As soon as these preliminary arrangements were completed we proceeded to examine the witnesses, and for this purpose our first public sitting was held at Calcutta on the 19th January. We commenced our tour through the affected provinces with a visit to Bankipur, the head-quarters of the Patna division where distress had been more severe than in any other part of the province of Bengal. From Bankipur we returned to Calcutta to resume the hearing of witnesses from other parts of Bengal, and then proceeded to the Madras presidency where we held sittings at Madras and Bellary. In the Bombay presidency we visited the head-quarter stations of the two most distressed districts, Bijapur and Sholapur, and took the evidence of the local witnesses there, the remaining witnesses from the presidency appearing before us at Bombay. From Bombay we proceeded to the Central Provinces to take the evidence of witnesses from that province and from the adjoining province of Berar. Our inquiries in the Central Provinces were especially close and were conducted at the head-quarters of three of the four divisions into which the province is divided. In the North-Western Provinces we held sittings at Lucknow, where the local Government was then residing, at Jhansi the head-quarter station of the old division of Bundelkhand, and at Agra. The Punjab witnesses appeared before us at Lahore. This tour occupied us till the 12th April, on which date we commenced our deliberations at Simla.

The witnesses.

7. The selection of the witnesses who should give evidence before us was in the first place necessarily left to the local Governments concerned. The majority of the witnesses so selected were officials of different classes who had been actively concerned in, and had personal knowledge of, the recent relief operations. But

in addition to official witnesses the local Governments selected for appearance before us a number of non-official witnesses, both European and Native, who from their social position or from their special knowledge of the people or of the circumstances of the late famine or for any other reason seemed likely to be able to assist us in our inquiry. Among them were zamindars or landholders, missionaries, merchants and grain dealers. We also caused to be inserted in the leading newspapers in the affected provinces advertisements inviting voluntary witnesses to lay their views before us. And from time to time we ourselves invited the attendance of persons who we thought could give information which would be of value to us. Altogether we examined 258 witnesses and admitted to the record the written statements of 110 other persons who were either unable to appear before us or whom the time at our disposal did not permit of our examining orally. Forty-nine days were occupied in hearing the evidence of these witnesses.

The evidence.

8. Our formal record of evidence contains the written statements of the witnesses who appeared before us and their oral examination, as well as the written statements of those witnesses who, for the reasons we have given above, did not actually appear before us for examination. As regards the oral evidence of witnesses we desire to explain that our staff of shorthand writers was very inefficient. Every endeavour has been made to reproduce the questions and answers as correctly as possible, and each witness has been given an opportunity of revising the proof of his evidence; but even so we are aware that the result in every case has not been quite satisfactory. And in addition to the formal evidence, a great mass of information has been placed at our disposal by the local Governments and Administrations. We have in every case been furnished with copies of the final report or orders of the local Government reviewing the famine relief operations in the province, and in many cases with similar reports submitted by the local officers to the Government. We have also received from the different provinces copies of all important correspondence that took place during the operations, copies of the instructions and orders issued from time to time by the local Government for the guidance of its officers, of the periodical reports and summaries submitted to and by the local Governments and complete statistics of the operations. And during the course of our deliberations at Simla we have received from every province, except Madras, the special report required by the Government of India containing the proposals and recommendations of the local Government for amending its famine code which the experience of the recent famine had led it to suggest. The information placed at our disposal has been very full and complete, it has assisted us most materially in our inquiries, and we desire to place on record our appreciation of the co-operation we have received in this respect both from the Government of India and from the local Governments and Administrations.

CHAPTER II.

NARRATIVES OF THE FAMINES AND SCARCITIES WHICH HAVE OCCURRED BETWEEN THE DATE OF THE FAMINE COMMISSION'S REPORT, 1880, AND THE FAMINE OF 1896-97.

Introductory remarks.

9. Between the report of the Famine Commission of 1880 and the late famine several minor famines or scarcities necessitating relief measures more or less extensive have occurred in different provinces. They have afforded opportunity for testing the prescriptions of the famine codes framed on the Famine Commission's report, and on the experiences thus gained the original codes have from time to time been revised until they assumed their present form. We think it will be useful in this part of our report to give a short account of these intermediate famines and scarcities, as they furnish interesting instances of famine relief administration, and may serve as a guide as to the amount of relief required in a particular area on the occasion of serious crop failure. Of the famines here described the gravest were the Ganjam famine of 1889 and the Madras famine of 1890-92. On these occasions the loss of crops appears to have been almost as great as that which occurred in the same tracts in the late famine. In the scarcity which visited Behar in 1891-92 the crop failure in a portion of North Behar approached in its completeness the crop failure of 1873-74 and of 1896-97. In none of these cases was relief required on anything like the scale found necessary in 1896-97. The explanation must be sought in the unprecedented rise in food prices which distinguished the late famine, and in the general paralysis of industry which so wide-spread a calamity occasioned. The experiences of the intervening years between 1880 and 1896 point to the conclusion that scarcities occurring over limited areas while the rest of the Indian continent is prosperous, can be successfully dealt with by a very moderate expenditure of money and without disturbing the ordinary administration.

Apprehended scarcity in 1880, in the North-Western Provinces and other parts of India.

10. A protracted break in the south-west monsoon in July and August 1880 caused apprehensions of serious crop failure in the Deccan and South Mahratta districts of Bombay, the Berars, the Central Provinces and Hyderabad. Reports came in that, owing to scanty rainfall and long drought, the *kharif* or rain crops were withering, the grass was burnt up, the water-supply was rapidly diminishing, and that severe distress was imminent. Fortunately the monsoon suddenly strengthened in the first week of September, and gave heavy and continuous rain throughout Southern India, which entirely changed the situation. A large proportion of the *kharif* crops was saved, the rise in prices was arrested, and the necessity for relief measures obviated.

Preparations in the North-Western Provinces.

11. A large portion of the North-Western Provinces also suffered from the uncertain and scanty rainfall of 1880. The latter half of September and the first half of October were almost rainless, and in Bundelkhand and other districts south of the Jumna, a dry west wind greatly damaged the *kharif* crop. From the lower portion of the Gangetic Doab and from the southern half of Oudh equally bad accounts were received. Wheat rose to 15 seers the rupee and barley to 18. The local

Government was seriously alarmed, and informed the Government of India on the 18th October that it would probably be necessary to open relief works in the tract now forming the Allahabad, Lucknow, and Benares divisions, owing to the failure of the rain crop and the apprehended difficulty of sowing the cold weather or *rabi* crop. The Famine Commission's report had by this time reached the local Governments, though no orders on it had been passed by the Government of India. In accordance with the recommendations of that report the Government of the North-Western Provinces proposed to at once organize a system of village inspection for the gratuitous relief of the incapable poor who could offer neither security for advances nor labour in return for relief. Each patwari's circle was to form a relief circle, and each kanungo was to be the supervising relief officer in his (the kanungo's) circle. The tahsildar was to check the kanungo's lists, and issue certificates to the persons considered eligible for gratuitous relief entitling them to receive specified doles of grain through the agency of the village grain-dealer. He was also to enquire into the cases of small landowners and occupancy tenants without the necessary means of subsistence, and to these would be given advances under rules framed under the Agriculturists' Loans Act on the security of their landed interests. To larger landholders would be given advances to undertake land improvement works for the employment of their tenants. The staff of tahsildars and of European officers was to be strengthened in the affected districts, and the co-operation of reliable native gentlemen in the work of village inspection was to be invited. These instructions were generally approved by the Government of India, but a question was raised whether the definition of the classes entitled to village relief had been made "sufficiently wide to include persons who are debarred by pride of birth from manual labour on out-door relief works." The Government of India expressed the opinion that the definition "incapable poor who can offer neither security for advances nor labour in return for relief" should not be so construed as to deprive of all relief those persons who from such scruples would rather die of starvation than work as labourers. On this point the local Government replied at some length. It remarked that the question whether any relief, and if so, what form of relief should be given to persons who cannot repay advances and who being able will not work, had not been dealt with by the Famine Commission, and that it required definite settlement. It dwelt on the difficulties and risks attendant on any system which recognised the right to relief of any class of able-bodied persons who did nothing in return for the assistance they received. It admitted that exceptional cases, really deserving of consideration, of poor persons of good social position who could not work nor beg without forfeiting their respectability might arise, but considered that all such ought to be investigated by a European relief officer before the claim was admitted, and held that all persons who might without real hardship be required to labour should be sternly excluded from gratuitous relief. These views were ultimately concurred in by the Government of India. Eventually preparations for famine relief were rendered unnecessary by good general rain during the third week in November, enabling the *rabi* to be sown in all districts and causing a heavy drop in prices.

Scarcity in the Southern and South-Eastern Punjab in 1884.

12. During the early months of 1884 the condition of the Southern Punjab, comprising the Karnal, Delhi, Gurgaon, Rohtak and Hissar districts, caused anxiety, and required some measures of relief. Throughout the tract the rainfall of 1883 had been much below the average. The *kharif* crop promised well up to the middle of July, but

a break in the rains lasted for six weeks from the middle of July till the beginning of September, and the greater part of the crop withered. A heavy and general fall of rain in the first week of September rescued some of it, but generally speaking the outturn of grain and fodder was very poor. The September rain enabled a considerable area to be sown for *rabi*, but the winter was rainless, and by March 1884 the unirrigated crops had almost wholly perished. In a great part of the tract the previous harvests also had been poor, and grain-stocks had become deplenished. But from the rest of the Punjab grain was actively imported, and prices, notwithstanding the local failure of crops, remained low. Barley in March was selling at 26 seers the rupee in the affected districts. The character of the five harvests, ending with the *rabi* of 1884, is shown below in terms of fractions of a rupee, 16 annas or one rupee representing an average harvest :—

	1882.		1883.		1884.	
	Rabi.	*Kharif.*	*Rabi.*	*Kharif.*	*Rabi.*	*Kharif.*
	As.	As.	As.	As.	As.	
Delhi	12	18	16	5	4	...
Karnal	4	8	4	3	4	...
Gurgaon	4	12	16	5	8	...
Hissar	12	8	12	4	8	...
Rohtak	12	8	8	3	4	...

The harvests had been continuously poor in Karnal and Rohtak from 1882, and in these districts the most serious distress was anticipated. The east and south-east of the Karnal district were protected by the Western Jumna Canal, but in the Kaithal and Karnal tahsils there was no *rabi* crop in most of the villages. Portions of the Rohtak district were also protected by the canal, but in the south, central and western parts of the district which depend on the rainfall, the *kharif* and *rabi* failed completely. The condition of the Delhi district was better, as the harvests preceding the *kharif* of 1883 had been good. In Gurgaon the people were exceptionally impoverished and indebted, as the effects of the famine of 1876-78, when 150,000 head of cattle died and 50 lakhs worth of crops were lost, had not disappeared. The position in Hissar was more satisfactory. The cultivators were reported not to have lost heart, and there were no signs of distress.

Summary of relief measures.

13. The relief measures comprised (1) the suspension of the land revenue where deemed necessary : (2) the grant of loans for digging wells, and later on, when the rains of 1884 broke, of agricultural advances for seed and cattle : (3) the provision of road and tank work by the district boards for the unemployed at ordinary rates of wages. No regular famine relief works were opened, but in addition to the employment provided by the district boards a considerable amount of earth-work was in progress on the canals and railways. A large drainage work was started in May 1884 in one part of the Rohtak district, but very few labourers came to it, and it was closed after about 2 or 3 months. In the canal tracts the harvesting of the spring crops also gave good and remunerative work to many. A scheme of major works for relief purposes was prepared in case the rains of 1884 should fail, and circle relief in accordance with the famine code was mapped

out against the same contingency. But as the rains of 1884 were good it was not found necessary to put these measures into operation. In no district was the distress or demand for employment great. The Delhi district in May reported that "the people do not crowd to the works, though the rate of wages is fair and work plentiful." The Karnal report was to the effect that the people were in good heart owing to low prices and large suspensions of land revenue. The Gurgaon report was that the people were cheerful, and that if rain fell there would be no distress. In that district 3,200 persons were on works. In Hissar in the same month (May) 750 people were employed, and 670 in Rohtak. In June the rains broke, when plentiful employment in the fields became open to all classes, and by the end of July the works had generally closed.

Revenue suspensions, and agricultural advances.

14. The largest amount of land revenue suspended was in Rohtak, where Rs. 2,29,000 of the *kharif* demand of 1883 and Rs. 2,23,000 of the *rabi* demand of 1884 were suspended. In Gurgaon the *kharif* and *rabi* suspensions amounted respectively to Rs. 1,16,000 and Rs. 1,15,000. In Delhi Rs. 40,000 and in Karnal Rs. 45,000 of the *rabi* demand was suspended. In Hissar practically the whole demand was realised without coercive processes or hardship to the people. About Rs. 70,000 was advanced for wells, cattle and seed in the four districts.

Inferences from the Punjab scarcity.

15. That this scarcity, arising as it did from a very extensive failure of two successive harvests, which in two districts had been preceded by decidedly poor harvests, should have been tided over at such small expense to the State, and resulted in so little distress, speaks well of the staying power and resources of the agriculturists of the south-eastern Punjab. The explanation must be sought, partly in the familiarity of the people of this part of the country with drought, and their consequent preparedness for it, partly on the proximity of the canal tracts offering abundant employment to the unemployed and providing surplus grain at low prices, and partly in the lightness of the land assessment. The most serious aspect of this, as of other similar scarcities in the south-eastern Punjab, was the great mortality which occurred among the cattle owing to the dearth of fodder and water, especially in the Hissar and Rohtak districts. A proposal to advance 2 lakhs of rupees, in these two districts, to the agriculturists was made by the Commissioner of the division but was not supported by the Financial Commissioner, and was ultimately refused by the local Government. The Financial Commissioner held that it would be cheaper in the end for the people to sell their plough bullocks at low prices and to buy others when rain began to fall, than to attempt to keep them alive on purchased fodder: and that it would be a great mistake "to encourage the people to run largely into debt for this purpose, when a second failure of the rains would inevitably result in the death of the cattle by starvation." He showed that in those districts the people were in the habit of selling their surplus cattle after harvest operations were over and buying others when required: and argued that it was undesirable to interfere with habits of this kind, which were the result of long experience in a tract of country where seasons were unusually uncertain. These conclusions were accepted by the local Government. "As regards cattle required for agricultural purposes" wrote the Government, "it is far better, because it is a far more certain method of relief, to make advances for the purchase of bullocks when the drought ceases, than to make advances nominally to keep them alive during the

season of drought. The free suspensions of land revenue which have been made will indirectly enable the agriculturists to procure fodder for their cattle. The people must be left to themselves in this matter: the proceeds of the sale of surplus cattle at the spring fairs will, no doubt, in many cases provide the means of purchasing fodder for the remaining cattle needed for agricultural purposes. Should it be necessary hereafter the Lieutenant-Governor will be prepared to make large advances for the purchase of cattle."

Distress in parts of Bengal in 1884-85.

16. The south-west monsoon rains of 1884 were ill-distributed and insufficient in the greater part of the province of Bengal. A prolonged break occurred during August in North Bengal, Behar and Chota Nagpur. This was in a measure made good by favourable rain in September and October over most of the province, but the crops were generally below the average, and a more or less pronounced failure of the winter rice crop was reported in November to have occurred in the Sadar and Nawada sub-divisions of Gaya, the Behar sub-division of Patna, the Sadar sub-division of Darbhanga; in parts of Nuddea and Murshidabad; and in parts of the Burdwan, Birbhum and Bogra districts. The prolonged cessation of the rains in August alarmed the local Government, and inquiries were instituted in all divisions as to the state of the crops and the condition of the people: but with the copious rainfall of September and October these anxieties were greatly allayed, and it was considered that distress would at the most be now confined to strictly limited areas in the above mentioned districts and would nowhere be very severe. Accordingly in November further and more minute enquiries were directed to be instituted in those areas in order to determine the villages likely to be actually affected, the classes of people in each village likely to need relief, the best means of affording it and the probable cost. Special attention was also directed to be paid to stimulating private charity and enlisting the co-operation of local residents of influence and public spirit in meeting such distress as might be expected to occur.

Relief measures in different districts.

17. The belief that relief measures might, without hardship to the people, be confined within narrow limits, proved to be well founded. In Nuddea and Murshidabad the district boards provided work on road repairs at ordinary rates of wages, but it attracted few labourers. In Gaya, Patna and Darbhanga similar works were carried on during the hot weather months of 1885 on a small scale. In May the Collector of the Darbhanga district was able to report that the condition of the people was so much better than he had anticipated, that he did not think that any further measures of relief were required. For relief works in the distressed parts of the district the local Government had made a grant of Rs. 5,000 in January, but it was not found necessary to spend it. The rains commenced in good time, and in July the local Government was able to report that such pressure as had existed was disappearing. Though there was "more or less pinching in parts of Gaya, Patna and Darbhanga", there was "no want of food and no necessity for any save a small expenditure in helping a few old and infirm persons and children." By September the Patna and Gaya districts ceased to occasion any anxiety. In Darbhanga distress was prolonged owing to an unsatisfactory *bhadoi* or early rain crop till November, but with a good winter rice crop it likewise disappeared.

Relief measures in the Burdwan division.

18. In the Burdwan division more serious distress actually developed in parts of the Burdwan, Birbhum and Bankura districts in the hot weather and rains of 1885. In the Burdwan district the area affected was about 600 square miles with a population of 300,000; in the Birbhum district 200 square miles were affected with a population of 100,000; and in Bankura 170 square miles with a population of 72,000. Distress in these tracts was chiefly confined to the non-labouring population, and was chiefly met by the grant of gratuitous relief, though for the relief of the able-bodied road and tank works on a small scale were provided by the district boards. In each district charitable associations were formed, and the gratuitous relief given by them was supplemented by similar relief given by the district officers, from funds placed at their disposal by the Government. Agricultural advances were also freely given. In May 4,500 persons were on the Government gratuitous lists in the Burdwan district; 6,000 in Birbhum; and 2,000 in Bankura. In June the numbers in Birbhum had increased to 14,300, of whom 8,500 were relieved by Government and 5,800 by private agencies. On relief works in these districts the numbers were much smaller, and the subject of gratuitous relief attracted attention, and led to correspondence of some interest between the Government of Bengal and the local officers. The first question discussed was as to the proper amount of the gratuitous daily dole. It was reported by the Commissioner that the money dole granted to each recipient represented the price of half a local seer (or $12\frac{1}{2}$ ounces) of rice, whereas according to the famine code it should be sufficient to procure the minimum ration of the code. The Commissioner admitted that this amount of food in itself was not enough to support life, but he urged that in his division only moderate distress and not famine existed, that the persons in receipt of gratuitous relief were either helped also by private charity or were earning small sums by odd jobs, and that in point of fact they were not in danger of starvation. The local Government, however, took the view that no departure from the recently promulgated famine code could be allowed, and that in granting gratuitous relief the scale therein prescribed must be adhered to. The second question was as to the prominence given in the division, especially in the Birbhum district, to gratuitous relief. The attendance at the road and tank works opened for relief purposes was small and showed no sign of increasing; while the numbers on the gratuitous list rapidly rose. The Commissioner recognised that in Birbhum the scheme of relief was faulty, and that there was too much reliance on gratuitous relief and too little on works. "A glance at the figures," he wrote in July, "given in the report shows that one-seventh of the entire population in certain tracts are in such a distressed condition as to require gratuitous help, and I cannot credit such a universal state of destitution. Most of these are women and children who are said to have none to support them; but this excuse can no longer be put forward, for the timely rainfall must have caused a return of those who went away in search of work." He urged on the Collector the opening of more works and the rigid sifting of the gratuitous lists. The Government took the same view, and from July a sensible reduction in the numbers gratuitously relieved commenced. A satisfactory monsoon enabled relief of all kinds to be closed at the end of November throughout the division. In August and September 1885 relief measures, chiefly in the form of loans, were again necessitated in Murshidabad, Nuddea and other districts on account of damage from floods, and in Orissa on account of a destructive cyclone and storm wave.

19. The total State expenditure on relief in the province amounted to $3\frac{1}{2}$ lakhs of which Rs. 2,41,900 were for loans and advances, and the rest chiefly for gratuitous relief. Relief works were, as stated, provided by the district boards.

Cost of relief.

20. The south-west monsoon rains of 1884 were also very deficient over a great part of the Madras presidency. In Madura, Coimbatore and Cuddapah the rainfall for the period from the 1st April to 30th September was nearly one-half less than the normal rainfall, in Bellary and Tinnevelly more than one-half less, and in Anantapur nearly two-thirds less. In all these districts the failure of the south-west monsoon was more complete than in the famine year 1876. Writing in the middle of October, the Madras Government described the position as critical. Fortunately prices still remained comparatively low, the preceding years had in most parts been good, and stocks of food in the presidency were believed to be large. In November and December all anxiety was removed in respect of all these districts, excepting Bellary and Anantapur, by a fairly good north-east monsoon.

Scarcity in parts of Madras in 1884-85.

21. In Bellary and Anantapur the crop failure was serious, though from differences of soils and rainfall four talukas and parts of two others, forming a block of 3,000 square miles, suffered more than the rest of the districts. These talukas were Gooty and Tadpatri in the north of the Anantapur district; and Bellary and Alur, with parts of Adoni and Rayadrug, in the east of the Bellary district, adjoining the affected tracts of Anantapur. The extent to which the rainfall failed is shown in the marginal table. But account has also to be taken of certain physical peculiarities of the districts. The affected talukas contain large areas of black soil, which depend for cultivation on heavy rain in September and the subsequent rains of the north-east monsoon. In the affected talukas the north-east monsoon gave little rain in 1884 and consequently a considerable portion of the area usually cultivated lay waste, and such as had been cultivated yielded less than one-fourth of an average crop. In the rest of the Anantapur and Bellary districts light red soils predominate, which will bear a crop with less rain than the black soils; and though the crop on them even here was under one-half the average yield, the loss was not so great as in the black soil tracts. In both districts prices were high. The price of cholum or greater millet stood at $18\frac{1}{2}$ seers the rupee in Bellary and $21\frac{1}{3}$ seers in Anantapur at the end of December 1884, against 38 seers in Bellary and 40 seers in Anantapur in December 1883. These comparatively high prices pressed heavily on people accustomed, as are the people of Bellary and Anantapur, to cheap food. A state of distress though not famine existed, and the Madras Government considered that it called for an enlargement

Tracts affected and character of scarcity.

BELLARY DISTRICT.			ANANTAPUR DISTRICT.		
Taluks.	April—December. 1884.	Normal.	Taluks.	April—December. 1884.	Normal.
	Inches.	Inches.		Inches.	Inches.
Bellary ...	7·67	17·24	Gooty ...	8·52	20·66
Alur ...	7·42	19·85	Tadpatri ...	10·03	19·25
Adoni ...	16·92	24·08	Anantapur ...	8·44	16·46
Hospet ...	13·91	22·56	Dharmavaram	11·11	20·48
Hadgalle ...	8·14	21·31	Penukonda ...	10·31	15·02
Kudligi ...	15·25	23·03	Hindupur ...	10·75	17·28
Harpanahalt ...	12·17	23·33	Madaksiva ...	12·00	19·72
Rayadrug ...	9·91	19·13			
	11·42	21·32		10·17	18·41

of ordinary public works, to afford employment for considerable numbers of people between the beginning of the year 1885 and the following June, when the next cultivating season would commence. There were, however, it was said, no irrigation or other projects sufficiently large in readiness, and it was proposed to reserve certain small works of communication for the approach of the cultivating season when it would be desirable to keep the people near their homes. The sanction of the Government of India was therefore sought for and obtained to commence earth-work for relief purposes on the projected extension of the Guntakal-Hindupur railway. This work was kept open till June when the monsoon set in. The expenditure on it appears to have been about one lakh. Such other relief works as were found necessary were provided by the district boards. No gratuitous relief appears to have been given, but large remissions of land revenue were made. In August 1885 a break in the monsoon renewed the anxiety of the Madras Government for the Bellary and Anantapur districts, and preparations for recommencing the railway work were made. But the monsoon again strengthened, and by the end of September the agricultural outlook was good and cholum had fallen to 25 seers the rupee.

Apprehended scarcity in parts of the Central Provinces in 1886-87.

22. In 1886 a long break in the rains in August and September greatly damaged the rice crop of the Bilaspur and Raipur districts in the Chhattisgarh division of the Central Provinces. In the middle of September a heavy fall of rain temporarily improved matters, but this was followed by another period of bright weather and hot dry winds. At the end of September it was reported that in Bilaspur 50 per cent. of the rice area would yield no crop ; that in the remaining area it would be only 4 annas ; and that the district board was starting work on tanks for the employment of the people. From Bhandara and Balaghat in the Nagpur division similar reports as to the failure of the rice crops were received, and preparations were made for opening works. The local Administration thought the situation sufficiently serious to be reported to the Government of India, and asked permission to start earth-work, if necessary, on the projected Bengal-Nagpur railway, as a relief work. In the first week of October good rain fell which did material good. The possibility of having to afford extensive relief was entertained for some time, and small relief works were kept open without attracting many labourers. The rice crop was almost a total failure over a considerable area in Bilaspur, and in Raipur over a large area it was little removed from a total failure. The October rain allowed an extensive *rabi* crop to be sown in many villages, but in both districts there were considerable areas in which only a rice crop could be sown. In these tracts distress was expected during the hot weather of 1887, and prepared for. But it did not appear, and the expenditure on relief works was very small. The ease with which the Chhattisgarh division sustained the disastrous season of 1886, strongly corroborated the often expressed opinion as to the great resources of this tract. Previous seasons had been good, there were ample stocks of food in the villages, and though prices were higher than usual, rice selling at 20 to 24 seers against 30 to 40 seers in 1885, they never reached scarcity level.

Scarcity in Behar in 1888-89.

23. At the close of the year 1888 the condition of the Champaran, Muzaffarpur and Darbhanga districts caused grave anxiety. In the two critical months of September and October 1888 the average rainfall in these three districts was only 5·44 inches, and this,

although nearly two inches greater than the amount which fell in the corresponding months of 1873 (the year of the Behar famine), was yet less than half the normal amount. This deficiency of rainfall extended to the whole of Behar and affected the winter rice crop throughout the division; but the only tract as to which real anxiety was felt, was a strip of land over 1,000 square miles in area which extended for about 90 miles along the Nepal frontier through Champaran, Muzaffarpur and Darbhanga. Here little except rice is grown, and in 1888 this crop was almost all lost. Prices rose to a high level, rice from January onwards selling at 11 and 12 seers in the affected tract. This, taken with the high prices prevalent, produced, it was recorded by the Lieutenant-Governor in February 1889 after a tour through the affected tracts, "among the poorer inhabitants of the area in question a certain amount of distress, very different in degree from that felt in actual famine, but nevertheless quite unmistakeable, and such as to call for relief." In January relief works were opened by the district boards in numerous localities, so that employment was offered to the needy within easy reach of their homes. To the able-bodied piece-work was offered at a rate which would enable the ordinary worker to earn the money equivalent of the "full ration" of the famine code. The weakly were employed on task-work on 75 per cent. of the full wage. Work was given to all who sought for it without exception. At the end of January about 8,000 persons were employed in Champaran, 4,000 in Muzaffarpur, and 4,000 in Darbhanga. As the hot weather months drew on, the district board works were supplemented by relief works conducted by the revenue authorities from provincial funds. Advances were also given to landlords and cultivators, and gratuitous relief on a small scale started. At the end of May the numbers of relief workers were about 15,000 in Muzaffarpur, 12,000 in Champaran, and 15,000 in Darbhanga. In June exceptionally heavy rain set in, leading to a general resumption of agricultural operations and a rapid fall in the numbers on relief works. In July floods caused anxiety, and interrupted grain traffic, so that prices rose and rice was as high as 9 seers the rupee in the affected tracts. Up to this time very little had been done in the way of gratuitous relief. A few kitchens were now opened for children, and a small expenditure incurred on grain doles in villages. In August 3,000 persons were in receipt of gratuitous relief in Muzaffarpur, and 1,000 in Champaran. Very few works still remained open. As the crops ripened, distress declined, and relief was everywhere closed at the end of October.

Cost of relief.

24. The total expenditure by Government on direct famine relief amounted to about 3 lakhs; on loans and advances about 3 lakhs more. The expenditure by the district boards amounted to 2 lakhs.

Remarks of the Secretary of State for India.

25. Commenting in October 1889 on the famine progress reports received from Bengal, the Secretary of State expressed his satisfaction with the promptitude and discrimination shown by the Government of Bengal and its officers in dealing with the crisis of North Behar. "The failure of crops and consequent distress," he remarked, "were happily confined to a narrow tract in Behar and were neither so severe nor so extensive as in the years 1869 and 1874. But in such a thickly populated region any serious failure of crops gives cause for anxiety." "The people had passed," he added, "through an anxious time without loss of life or avoid-

able suffering." But the Secretary of State went on to say that he was not equally satisfied that the necessities of the case were promptly recognised by the local officials and dealt with in the Orissa Tributary States and in Angul. "In the chiefships the primary responsibility rests upon the chiefs: but the shortcomings of the Daspalla Chief, and the situation in some of the other Estates might have been ascertained earlier. In the Government estate of Angul, British officers were certainly responsible for ascertaining the facts and for administering relief: and the situation there appears to have become critical before active relief work was begun under orders given by Sir John Edgar on the spot." The scarcity in Orissa here referred to will now be noticed.

Distress in the Tributary States of Orissa in 1889.

26. In March 1889 the deficiency of the crops of the preceding year in many of the Tributary States of Orissa was the cause of some anxiety to the Government of Bengal, and the necessity for special vigilance in Angul, a once tributary state which had been confiscated in 1847 by the British Government, and had since remained under Government management, was impressed on the Commissioner of Orissa. The Angul territory is difficult of access from Cuttack and is shut in on all sides by hills and unbridged rivers. It is a net-work of forest clad hills, and its population consists largely of aboriginal tribes and semi-hinduised castes which find a precarious subsistence in the forests and in temporary cultivation, or as field hands in the more open parts of the country. The total population is about 100,000 souls. Rice is the sole crop. In 1887 and again in 1888 the crop was very short, the yield being less than half the average. On the failure of the crop of 1888, reports of distress in Angul were received, and caused the anxiety which led the Bengal Government to impress the necessity of vigilance on the local authorities. Up to June, however, no special expenditure on relief was sanctioned, and of the sum of Rs. 12,000 placed by the Government of Bengal at the disposal of the Commissioner of the division for advances to the cultivators, only Rs. 3,000 had been disbursed. The monthly reports from the native superintendent of the Angul territory at length indicated such serious distress that in July Sir John Edgar, the Chief Secretary to the Bengal Government, was deputed to Orissa. He found the situation more critical than had been realised by the local authorities, and that the measures of relief which had been taken were quite inadequate. Great distress existed, and while an enormous number of deaths from cholera were reported, there was evidence that not a few were really due to privation. A few relief centres had been established with works attached to them. But they gave employment to only 493 persons and gratuitous relief to 1,998 persons, and both the amount of wage on the works and the ration given on gratuitous relief were unquestionably insufficient. Measures were at once taken to make relief effective. The estate was divided into three circles, each under the charge of a European officer who was given a medical subordinate. Their duties were to visit each village, to superintend the distribution of gratuitous relief to those who could not work, to give light work, such as basket working and husking rice, to those capable of light work, to distribute seed and subsistence advances to cultivators and to others for spinning and weaving, and to provide for the able-bodied such work on roads and embankments near their villages as it was found practicable to carry out in the rainy season. The cost of these measures was estimated at Rs. 41,000, and to prevent any risk of food supplies in the territory running short, Rs. 15,000 was also spent on purchasing and forwarding unhusked rice

from Cuttack. With these measures and favourable rains the distress was brought under control, though, as the Government of Bengal remarked, it is much more difficult to "overtake a famine which has been allowed to get out of hand than to prevent starvation by timely measures." Many of the persons brought on to relief were in bad condition, specially the children. At the end of September the numbers on relief did not exceed 3,600, of whom three-fourths were women and children in receipt of gratuitous relief, and by the end of November it was found possible to close all relief operations. No trustworthy mortality statistics appear to have been collected, but the combined effects on the population of cholera, dysentery and other diseases usually accompanying a period of general privation were admittedly great.

The situation in the tributary states in the vicinity of Angul, in the hilly country lying north and south of the Mahanadi river, was also investigated by Sir John Edgar, and ascertained to be as serious in several of them as in Angul. In each case such measures of relief as were found practicable were concerted with the ruling Chief, loans of money for relief purposes granted where necessary, and more effective supervision arranged for. That the mortality from privation was great in several States unfortunately does not admit of doubt.

The Ganjam famine of 1888-89.

27. The south-west monsoon of 1888 began late in Ganjam and was irregular and scanty, the total rainfall received by the district between the 1st April and the 30th September being only 18 inches, against a normal rainfall of 31 inches. The normal rainfall of the north-east monsoon in Ganjam, between the 1st October and 31st December, is 11 inches. In 1888 this period was rainless except for a cyclonic storm which gave 7·7 inches of rain between the 29th October and the 9th November. The crops which consist chiefly of unirrigated rice and ragi had failed seriously by the 15th October over large areas, water and pasturage became very scarce, grain-dealers in panic refused to sell grain, prices rose rapidly, and grain riots and robberies occurred. The Madras Government deputed one of the members of the Board of Revenue to proceed to Ganjam at once and report on the condition of affairs. Mr. Garstin's arrival in the district on the 4th November 1888 had been preceded by rain, and its effect was to save the standing dry crops of red-gram, horse-gram and late ragi, and to secure some yield to the rice crop where it had not already withered. The conclusion he arrived at was that at that date there was no general failure of food-supply. He estimated the yield of the rice crop at three-eighths of a normal yield, and put that of other crops somewhat higher. He considered it beyond doubt that the high price of food grains and the prospect of a bad rice harvest had caused much distress, especially to the poorer classes and the weavers. He recommended the opening of large works, to be carried out as ordinary public works by professional agency, and under the powers vested in him by Government at once opened the Rushikulya canal project on the ordinary piece-work system through contractors. He recommended advances to weavers, and in regard to gratuitous village relief to the helpless and those unable to work (lists of whom were being prepared by the Collector) he advised that relief should be granted to them when the price of rice exceeded the scarcity rate. The scarcity rates at that time fixed for the Ganjam district were 11·20 seers the rupee for rice, and 16·60 for ragi. In 1887 the average price of rice had been 25½ seers and of ragi 45 seers the rupee. In October 1888 rice had risen to 10 seers

and ragi to 23 seers the rupee. These prices fell to 12 seers and 24½ seers respectively when rain occurred in November, but they gradually rose from this point in subsequent months, till in June 1889 rice was selling at 9·9 seers and ragi at 17 seers. Under Mr. Garstin's proposal it would have been permissible to the Collector to have commenced gratuitous village relief in December 1888 when rice became dearer than 12 seers the rupee. The Madras Government, however, held in its order of 12th December 1888 that ragi being the cheapest food in ordinary use in the district should be regarded as the standard grain, and forbade gratuitous relief being given, except in the case of homeless wanderers and beggars in danger of starvation, until the price of ragi reached 16 seers the rupee. It was subsequently ascertained, when His Excellency the Governor of Madras visited Ganjam in June 1889, that the assumption that ragi was the common food of the people in Ganjam was incorrect, as though largely consumed, it is always mixed with rice by even the poorest classes. The course of the Ganjam scarcity also showed that distress might become very general and severe without ragi reaching the scarcity rate of 16·60 seers the rupee. As it loses 20 per cent. in bulk in being converted into meal, the scarcity rate of 16·60 seers of ragi, in grain, represents a rate of 13·3 seers of ragi meal. The decision to defer gratuitous relief until the scarcity rate of ragi was reached was thus an unfortunate one, and had unfortunate results. As regards relief works, the Madras Government approved the orders as to the opening the Rushikulya canal and other works, but directed that all persons, and not the able-bodied only, should be given employment on them, and also authorised the Collector to open subsidiary small works, as necessary, under civil agency.

Relief up to June 1889.

28. Up to June 1889 relief was regulated by these orders. The large public works gave employment to about 4,000 labourers in January, 13,000 in February, 14,000 in March, and 20,000 in April. Virulent cholera then broke out and the numbers in May and June fell in consequence to 11,000. The original intention was that all applicants for labour should be provided with employment on these works, but the works were given out by the Public Works Department to contractors, only able-bodied labourers were admitted, and numbers of people were left without employment, until in May the Collector perceiving this opened civil agency works for their relief. On these small works between 5,000 and 10,000 persons were employed for some months. When Lord Connemara visited Ganjam in June 1889, about 18,000 persons were employed on professional agency and civil works, and some 2,300 persons had been admitted by the Collector to gratuitous village relief, on the ground that they were in danger of starvation. As distress was severe in a tract of about 2,500 square miles with a population of 1,100,000, relief was confined to about 8 persons in every square mile, representing only 2 per cent. of the population.

Lord Connemara's visit. Famine recognised.

29. Lord Connemara marched in the first fortnight in June 1889 through the most distressed parts of the district, and then recorded the conclusion that "a large amount of distress, amounting to starvation, existed, and that the most urgent orders and the most prompt action were required if many lives were not to be lost by the most lingering and dreadful of deaths." Famine was declared by the Madras Government to exist in the Ganjam district. Numerous kitchens were at once opened for the distribution

of cooked food, and orders were passed for the formation of relief circles, the appointment of circle relief officers, and the distribution of doles of grain or money in the villages to the aged, the poor, the sick and the destitute. Seed-grain for the cultivators was also imported from the Godavari district. The Madras Government further relieved the Revenue Board of the management of the famine, and put the Collector in direct communication with itself. Under this changed policy the numbers on relief rapidly augmented. The Revenue Board recorded in its review of the operations that "The careful inspection of the villages and the opening of the kitchens revealed the existence of severe and wide-spread distress which had not previously been adequately realised." The numbers on gratuitous relief, the grant of which under the code is confined to destitute resident villagers physically incapable of or unfit to labour, increased rapidly. The numbers on village relief rose to over 27,000 by the end of June 1889, to 70,000 by the end of July, and to 93,000 in the first week in August. In August over 11,000 persons were also fed daily in kitchens. This month marked the highest point in relief As the circle relief organization was perfected, it became possible to exercise stricter control, and with a good harvest on the ground the numbers on gratuitous relief were reduced to 28,000 by the end of September. At the end of October 1889 this form of relief was discontinued, though relief works were retained till the end of November.

Cost of relief.

30. Complete accounts of the expenditure on this famine are not given in the official report upon it. But Rs. 3,64,000 is stated to have been expended on professional works, Rs. 2,45,000 on civil agency works, and Rs. 3,50,000 on gratuitous relief. Rs. 1,70,000 was advanced to weavers and for seed-grain. Rs. 2,68,000 of land revenue was remitted, and Rs. 3,00,000 was suspended. The expenditure was by no means excessive, but it may be conjectured that if relief had been more freely given in the first stage of distress, less would have been spent on gratuitous relief and kitchens in the second stage.

Mortality in the Ganjam famine.

31. As regards the mortality during the famine period, the chief facts are these. The average number of recorded deaths per annum in the Ganjam district for the ten years ending the 30th September 1888 was 19 000 from all causes, and 18,400 excluding cholera. In the 12 months from the 1st October 1888 to the 30th September 1889, the recorded number of deaths was 38,463 from all causes, and 24,422 excluding cholera. This gives a recorded death-rate for these twelve months of 42·0 per mille from all causes, and 25·6 excluding cholera. The latter death-rate is below the true death-rate of an Indian district in healthy years and stamps the death registration of the Ganjam district as defective That this must have been so is also shown by the low recorded death-rate of 16 per mille, excluding cholera, for the decennial period immediately preceding the famine. It is possible that the registration in 1888-89, though imperfect, was more perfect than that of the decennial period, as the existence of distress directed special attention to the subject. But the exact allowance to be made for this cannot be determined. On the other hand it is probable that some of the deaths ascribed to cholera resulted more or less directly from privation. All that can be safely said is that the mortality of the famine period from all causes was much in excess of that of ordinary years.

Discussion of certain relief questions.

32. The incidents of this famine led to the consideration of some important principles of famine procedure. It was recognised that the rise of prices to a particular rate should not be made the criterion of the necessity for granting relief, and that the special use of what are called scarcity rates in the codes is to act as a danger signal. A rise of prices to such points is ordinarily a sign of the existence of severe scarcity, but severe distress may exist before prices have reached this limit. The Madras Government also considered that the code scarcity rates for all districts required revision, that such rates should be determined with reference to local conditions, and that it was unsafe to take as a danger signal for the whole presidency one and the same percentage of increase in the price of food grains. "In Ganjam wages and prices are ordinarily lower than in any other district of the presidency, and any rise in the price of food grains is felt more quickly and acutely by the low paid labourer there than by the better paid one elsewhere." With regard to particular measures of relief, the plan adopted in the Ganjam famine of confining the departmental public works to able-bodied workers and leaving the civil authorities to manage small works for all other classes, was considered to have been unsatisfactory. The better procedure, it was held, would have been to have placed all works under professional management, and to have fixed varying tasks for varying capacities. The predominance which grain and money doles had assumed in the Ganjam famine and the objections taken by the people to cooked food were thus dealt with: "The Government considers that cooked food is the best form of relief for all who cannot earn wages on relief works. As regards the alleged difficulty of adopting it generally on the ground of caste scruples, the Government does not consider that any such scruples are *bonâ fide* or should be recognised which do not involve loss of caste by accepting the relief: if the food is cooked by Brahmins in a kitchen to which none but Brahmins have access, there is no room for any such scruple..... Acceptance of cooked food is the truest and safest test of the need for gratuitous relief, but the objection to relying exclusively on this form of relief is, that it would be difficult to work on a large scale if there were wide-spread distress. When a large proportion of a not very dense population has to be relieved, the organization of adequate distribution of cooked food becomes almost impossible. Some discretion must therefore be given to officers in special cases to substitute grain doles for cooked food." The preference here given to kitchens is still retained in the Madras famine code. The code directs that in the early stages of distress, unless the Government should order otherwise, gratuitous relief should be restricted to the grant of cooked food in central kitchens; and differs from all other codes in postponing the organization of relief circles and the preparation of village lists until distress has become severe.

Scarcity in the Kumaun and Garhwal districts of the North-Western Provinces and Oudh in 1890.

33. The autumn crops of 1889-90 throughout the districts of Kumaun and Garhwal were indifferent. The area under plough was below the average owing to a severe epidemic of cholera. The season was also unfavourable. The rains were late in coming, were excessive while they lasted, and ended early. The result was a bad harvest of the grains which form the staple food of the poorer classes in the hills of Kumaun and Garhwal. The usual winter rains were also a failure, and, except in the area irrigated from the hill streams, the spring crops of 1890 almost wholly failed. The people in these hilly tracts live in

scattered and distant villages, communication between which is difficult. The fields produce little more than is needed for their food, and throughout Garhwal and much of the Kumaun hill country, there is an absence of traders and grain-dealers. The cultivators and landholders live on their own stocks, and in consequence of the deficiencies of the *kharif* and the failure of the *rabi* these stocks were dangerously depleted. The people in most parts had money to buy food, but there was no machinery for getting and distributing the necessary supplies. It became accordingly necessary to import and distribute grain through Government agency. In April 1890 the local Government sanctioned the purchase of 45,000 maunds of grain for Garhwal. Most of the quantity was bought in the markets of the plains, and, before the rains made transport difficult, it was removed to selected depôts in the interior. It was sold as required under official supervision at rates which covered all costs of purchase, transport and wastage, and was also sufficiently high to enforce economy on the purchasers. In Kumaun, the failure of crops not being so serious as in Garhwal, it was considered sufficient to place at the disposal of the district officer Rs. 15,000 for purchase of grain. In Kumaun grain was given out in return for cash, but in Garhwal it was almost entirely advanced under engagements to pay by instalments extending over two years. By one or other of these methods about 41,000 maunds of food were placed in the hands of the people. Cash advances aggregating Rs. 10,500, representing some 5,000 maunds of food-grain, were also made in Garhwal. Orders were given for the opening of relief works for those who could neither buy nor give security. But there was apparently no need to give effect to these orders. Gratuitous relief was neither required nor given. During April and May good showers fell in both districts, which ensured the germination of the *kharif* crops. The monsoon rains were also favourable, and by the middle of August all cause for further anxiety ceased. In September an excellent harvest was reaped. In Garhwal about 75,000 persons, a fourth of the population of the district, were for some time dependent on the supplies they drew from the Government stores. In Kumaun upwards of 12,000 maunds were sold, and the relief thus given was divided over a population of 34,000. The cost of the relief measures in Garhwal came to Rs. 1,48,000. Of this sum, it was estimated at the time that about Rs. 1,38,000 would be recovered. In Kumaun the cost aggregated Rs. 37,000, almost the whole of which was recovered. These measures proved ample and met the necessities of the people.

Scarcity in the Kumaun division and in Dehra Dun in the North-Western Provinces and Oudh in 1892.

34. In March 1892 the probability of the occurrence of distress in the districts of Garhwal and Almora in the Kumaun division was brought to the notice of Government. In the following month reports of a similar tenor were received from the hill pargana of Jaunsar-Bawar in Dehra Dun. In both cases the reason for the anxiety was the same. The *kharif* or autumn crop of 1891-92 had been a poor one because of the lateness of the rains, and the partial destruction of the crops by locusts. Owing to the failure of the usual winter rains, the spring crop proved to be even worse. Throughout the month of March dry west winds and a high temperature prevailed, which prevented the germination of the crops. These two successive crop failures left a large tract without sufficient grain in store to carry the people on till the gathering of the autumn harvest of 1892-93. At the end of March advances to the amount of Rs. 15,500 under the Agriculturists' Loans Act were sanctioned for Kumaun. It was, however, soon found

that owing to the depletion of local stocks and want of private traders to import grain from the plains, cash loans were of no use, as there was no grain to be purchased with them. It was accordingly decided that, as in 1890, grain should be imported by Government for sale to the people. Forty-five thousand five hundred and twenty-four maunds of wheat, gram and barley, costing in all Rs. 1,54,624 were thus brought to the affected tracts and distributed in Garhwal and Almora. The cash sales amounted to Rs. 25,040, and those on credit to men with interest in land and to others on their security to Rs. 1,41,533. Profiting by the experience of 1890, the purchase of grain on this occasion was made more cautiously, a much smaller stock was left in hand, and it was anticipated that no loss would accrue to the State. In Garhwal the number of persons who made purchases was 18,134, and allowing, as estimated by the Deputy Commissioner, eight persons for each purchaser, some 150,000 people were assisted by advances of Govenment grain. The people in the interior hills displayed great disinclination to go down to the plains, or to travel any great distance even in the hills to buy grain. Besides relief granted by distribution of grain, the collection of land revenue was suspended as also the realization of advances made during the scarcity of 1890. No relief works were found necessary in Garhwal, but in Kumaun road repairs were undertaken in order to give employment to those who could not afford to pay for food and for whom no one would stand security. The relief measures taken proved sufficient to keep the people in their homes and prevented the scarcity from deepening into famine. In Jaunsar-Bawar there was no necessity to import grain, as there was a local market easily accessible from all parts of the affected area which had the advantage of an excellent cart road linking it with the plains. The relief took the form of advances for seed and sustenance, the total amount distributed for both these objects being Rs. 23,400. Some road works were also started, which however did not attract more than 200 labourers. Special difficulties were met with in extending to the people the full measure of help they needed. These were caused by their constitutional apathy and shyness, which led them to suffer in silence rather than bring their distress to notice, and by their disinclination to leave their homes, which prevented them from taking advantage of works opened for them even when they were at a moderate distance from their villages.

The monsoon of 1892 was early and favourable. The earliest autumn crops were gathered in both Kumaun and Jaunsar-Bawar in the third week of August and the distress then came to an end.

Distress in the Madras presidency in 1891 and 1892.

35. With the failure of the north-east monsoon of 1890 a period of severe agricultural distress commenced and prevailed for over two years throughout the Madras presidency. The failure was most marked in the Central and Carnatic districts which depend chiefly for their rain on the north-east monsoon. But in the first six months of 1891, it was only in the five districts of Cuddapah, Nellore, Chingleput, North Arcot and Coimbatore that special relief operations were found necessary. The south-west monsoon of 1891 was late and seriously deficient and led to a large failure of crops in the Deccan and Central districts, a failure which was afterwards intensified in many parts by the failure of the north-east monsoon of 1891-92. Up to June 1891 the area of distress in which relief operations were necessary was 3,450 square miles. In consequence of the failure of the monsoons of 1891 it increased to 21,300 square miles in December 1891, and 22.700 square miles

in March 1892. Towards the close of April 1892 some good showers enabled cultivation to be commenced, and the distressed area was contracted to 17,600 square miles by the end of June. The south-west monsoon of 1892 was exceptionally good and by the end of September it was possible to close relief works everywhere.

Districts affected.

36. The districts seriously affected during these two years of deficient rainfall were the same which had suffered most severely in the great famine of 1876-78. But the calamity was of a much smaller kind, in respect to both the extent of the area affected and the acuteness of the distress experienced by the people. The extent to which the rainfall was in defect in each district in which famine relief operations were found necessary in 1890-91 or 1891-92, or in both years, is shown by the following figures :—

District.	Rainfall in inches.			District.	Rainfall in inches.		
	Average.	1890-91.	1891-92.		Average.	1890-91.	1891-92.
Chingleput ...	46·11	30·96	29·44	Nellore ...	34·93	25·81	16·99
North Arcot ...	37·87	32·08	26·36	Kurnool ...	27·20	29·05	14·79
Salem ...	31·68	31·30	19·46	Bellary ...	22·70	24·28	9·92
Coimbatore ...	25·59	25·69	21·10	Anantapur ...	23·74	20·86	10·86
Tinnevelly ...	26·90	22·35	32·88	Cuddapah ...	29·12	21·79	14·17

Course of relief operations.

37. Relief works were first opened in February 1891 in Chingleput and North Arcot, and in March and April in Tinnevelly, Coimbatore and Cuddapah. In May the numbers on relief works were 14,900, and in June 16,780, by far the majority being returned in Chingleput and North Arcot. In these two districts it was also found necessary, in March, to give some gratuitous relief by means of kitchens to those unable to work. In July, which marks the commencement of the second period (July to December 1891), relief works were also opened in Nellore. In August works were closed in Tinnevelly. In that month the numbers on relief works were 29,700, of whom 7,289 were in Chingleput, 10,248 in North Arcot and 6,912 in Coimbatore. In October Salem was added to the list of districts having relief works open, and the total numbers of workers rose to 34,658. In the two succeeding months the numbers fell to 21,800 and 18,700, and it was found possible to close relief works in Chingleput and Coimbatore at the end of December. On the other hand works had then to be opened in the three Deccan districts of Kurnool, Bellary and Anantapur. During the third period (January to June 1892) the numbers on relief works rose rapidly. In June the average numbers exceeded 87,000, the highest daily total (92,583) being reached on the 18th June. Of this total Nellore accounted for 22,700, Kurnool for 25,000, Bellary for 18,000, Cuddapah for 11,900 and Salem for 6,600. In Anantapur, though the loss of crops was great, the attendance on the works was surprisingly small, never exceeding 1,500. Relief kitchens during this period were maintained in the several districts for the families of the relief labourers, but the latter evinced great unwillingness to send their children to them, and in no month did the total number of persons gratuitously relieved in kitchens in the presidency during this period exceed 1,300. The fourth period (July to September 1892) marks the decline of distress. The average number of relief workers fell from 55,000 in July to 21,000 in August and 3,000 in September, and in

the later months all relief works still remaining open were closed. Kitchen relief similarly declined, and was finally discontinued in September.

Relief statistics.

38. The average number of relief workers and of persons gratuitously relieved in kitchens in the presidency in each month is shown in the following table :—

1ST PERIOD. JANUARY TO JUNE 1891.			2ND PERIOD. JULY TO DECEMBER 1891.			3RD PERIOD. JANUARY TO JUNE 1892.			4TH PERIOD. JULY TO SEPTEMBER 1892.		
	Works.	Kitchens.		Works.	Kitchens.		Works.	Kitchens.		Works.	Kitchens.
January ...	...	...	July ...	16,634	2,334	January ...	27,340	1,321	July ...	55,390	873
February ...	1,083	...	August ...	22,750	4,753	February ...	31,438	1,233	August ...	21,494	548
March ...	6,678	26	September...	29,719	6,961	March ...	42,092	985	September...	3,197	130
April ...	9,983	760	October ...	34,658	6,350	April ...	56,668	916			
May ...	14,899	1,224	November...	21,827	4,123	May ...	73,835	1,071			
June ...	16,779	1,563	December...	18,698	2,364	June ...	87,587	1,094			

In the districts first affected by scarcity in 1891 the rise in prices during the first period was continuous, though it was very gradual and was much mitigated by the activity of the grain trade. Taking Chingleput as a typical district, the average prices of rice and ragi in the five years preceding 1891 were 16 and 27 seers the rupee respectively. In June 1891 rice was at 11 seers and ragi at 19 seers. With the failure of the south-west monsoon in July 1891 the rise in these districts became more rapid, and the sudden cessation of imports from the Deccan districts which now became affected sent prices up to famine rates, and they remained high till June 1892. In October 1891 ragi reached 15·8 seers, and in December 1891 rice 9·6 seers, in Chingleput. In North Arcot ragi was selling at 13 seers against the normal price of 31 seers. In the Deccan districts cholum, the chief staple in this part of the presidency, was at 14 seers the rupee in Bellary, and at 12·4 seers in Anantapur in December 1891, the normal price for the month being 32 seers. From December 1891 to June 1892 the price of cholum in the distressed parts of the Deccan was maintained between the narrow limits of 13½ and 15 seers. In 1892 the distress was so severe over so large an area and the surplus produce in the presidency generally so small, that resort had to be made largely to other provinces for grain. In the two years ending September 1892 the imports into the presidency exceeded the enormous total of 420,000 tons.

Cost of relief operations.

39. The cost of the famine is exhibited in the following table :—

District.	Works.*	Gratuitous relief.	LAND REVENUE REMISSIONS, 1890-91 AND 1891-92.			Loans.	Total.
			Wet.	Dry.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coimbatore ...	75,695	5,236	55,902	...	55,902	9,21,985	10,58,818
Salem	1,18,634	5,035	1,37,382	849	1,38,231	1,77,547	4,39,447
North Arcot ...	1,40,659	28,322	4,88,073	...	4,88,073	4,29,004	10,86,058
Chingleput	1,97,017	13,816	7,88,440	...	7,88,440	4,97,882	14,97,155
Nellore	3,04,254	1,900	8,43,190	1,70,550	10,13,740	1,65,395	14,85,289
Cuddapah	1,85,562	498	4,43,909	...	4,43,909	6,29,376	12,59,345
Anantapur	26,142	2,683	1,67,326	1,17,271	2,84,597	98,099	4,11,521
Bellary	2,01,550	820	42,221	6,49,551	6,91,772	2,69,834	11,63,976
Kurnool	4,03,664	6,667	91,867	95,812	1,87,679	2,25,517	8,23,527
Tinnevelly	*Nil.*	*Nil.*	3,91,803	83,245	4,75,048	*Nil.*	4,75,048
	16,53,177	64,977	34,50,113	11,17,278	45,67,391	34,14,639	97,00,184

*Includes Rs. 1,21,068 on account of special establishment. Against Tinnevelly no relief works expenditure is shown, as the works there opened for the relief of distress were confined to Local Boards works.

Of these items the expenditure on "works" and "gratuitous relief" alone was debited to the head "Famine relief." A sum of Rs. 1,15,983 not shown in the above accounts was also spent on account of additional civil establishments. The land revenue remissions exceeded by Rs. 40,66,137 the average remissions for the two years preceding the famine, and the loans and advances were similarly Rs. 32,07,145 in excess of the average advances and loans of the following years. The remissions on wet lands were granted in accordance with the standing rules on the subject in force in the Madras presidency, which entitle the occupier of land to remissions when tank or canal irrigation fails. But by the same rules remissions on unirrigated lands are sanctioned only under very exceptional circumstances. The extent of crop failure which led to 6½ lakhs being thus remitted in Bellary may be judged from the following figures. The average "dry" cultivation of the Bellary district for the five years ending 1889-90 was 1,868,273 acres. In 1891-92 only 1,455,723 acres were sown, and of this diminished acreage 350,728 acres totally failed, and on 43,981 acres more the crop was not in excess of one-eighth of an average outturn, or in other words was not worth harvesting. The outturn of the 1,060,000 acres which were harvested was very much below the average.

Agricultural loans.

40. For the construction and repair of irrigation wells over 28 lakhs were advanced on specially favourable rates. Considerable sums were also advanced for purchase of cattle, seed-grain and fodder. These loans are said to have been of the greatest service both in increasing the outturn of the harvests and in giving employment to the poorer cultivators and agricultural labourers. Though there were undoubtedly instances in which the money was not applied to the purpose for which it was lent, in the great majority of cases it is said to have been honestly utilized to the great advantage of the borrower and the State.

Relief works and wages.

41. Of the 16½ lakhs expended on relief works more than half was spent on road making, and the balance on irrigation works. In districts in which minor irrigation works were numerous it was considered good policy to put those useful works into thorough order. But in the Deccan districts almost the only possible kind of relief work is road making. In accordance with the orders passed by the Madras Government after the Ganjam famine of 1889, every effort was made to utilize professional agency to the largest extent possible, and the general supervision of the road works was entrusted to the engineers of the district boards. With regard to the wages paid it was reported that "all gangs have been given the class III task, and when the task was executed, the class III pay, but they have been allowed for a proportionate increase of work to earn a proportionate pay. Several class III gangs, therefore, have earned class II pay or have earned rates of pay between class III and class II rates." The scale of wages for class III gangs under the then existing Madras famine code is shown in the margin. With grain at 14 seers the rupee these wages were equivalent to 41 ounces of grain for a man, 32 for a woman and 20 for a child. The wages earned by the relief workers had, it would seem, to support not only the relief workers but also such of the aged and the very young of their families as were unable to work. The only form of relief offered by the State to non-workers was cooked food in

Men	... 1½ lbs.	+ ⅛ anna.
Women	... 1⅛ ,,	+ ⅛ ,,
Children	... ⅝ ,,	+ ⅛ ,,

kitchens and the people showed a very strong reluctance to accept relief in this form. In commenting on the smallness of the sum spent on gratuitous relief the Famine Commissioner expressed his opinion that, as there was no actual famine but only severe distress, as work was provided even for the weakly, and the number of the destitute absolutely unable to work was everywhere very limited, the restriction of gratuitous relief to cooked food was wise. But he recognized that under different circumstances grain doles in the villages for the infirm and small allowances to the workers for children too young to work would have been necessary.

The death-rate.

42. During the period of distress the death-rate was higher than usual in all the affected districts, but no abnormally high rates were anywhere recorded, and in the belief of the Madras Government no one died from absolute want. If deaths from cholera, which was very prevalent throughout the presidency in 1891 and 1892, be excluded from the comparison, the death-rate in 1891 and 1892 was not much in excess of the normal rate.

Famine successfully managed.

43. The long period during which scarcity and high prices prevailed, the large area affected and the scattered and shifting character of the relief operations necessitated by the partial and capricious rainfalls of the seasons made the administration of this famine exceptionally difficult. So far as can be judged it was conducted with great skill and prudence. The amount of relief given was certainly not excessive, and there seem to be no grounds for deeming that it was in any respect insufficient. The help given to the people by revenue remissions and loans was, it may be observed, much larger than the direct outlay on famine relief.

Distress in parts of the Bombay Deccan in 1891-92.

44. The failure of the south-west monsoon of 1891, which led to distress and to relief operations in the Madras Deccan, was also felt in parts of the Bombay Deccan. The area affected in Bombay comprised the whole of the Bijapur district, the Athni, Gokak and Parasgad talukas of the Belgaum district, and the Gadag, Ron and Navalgund talukas of the Dharwar district. The total area affected was 9,484 square miles with a population of 1,467,000. The rains in this tract were in 1891 very capricious and insufficient. In some localities there was no rain at all. The actual crop yield was thus returned, "In Belgaum, in the Athni taluka, there were in parts more directly affected practically no crops at all; in Gokak, except in the western parts, the crops were nearly an entire failure, and in Parasgad the outturn ranged only from about $\frac{1}{8}$th to $\frac{1}{4}$th. In Dharwar, in the Gadag taluka, the outturn ranged from $\frac{1}{8}$th to $\frac{3}{16}$ths: in the Ron taluka, the average outturn was slightly better, and in the Navalgund taluka it was somewhat worse. In the Bijapur district, where the results for the different talukas were somewhat irregular, the outturn of the chief food-grain, jowari, averaged only from $\frac{1}{8}$th to $\frac{3}{8}$ths: and that of bajri, which ranks next in importance, was as a rule still smaller. The cotton crop was, everywhere, almost an entire failure."

Character of scarcity.

45. When October and November passed without rain, and the failure of the crops was certain, a brief period of panic set in, and prices rose to famine level. The highest prices touched in December were 12 and 13 seers for jowari. But from this point they

soon declined as the extreme apprehensions of the people became allayed, and from January to July 1892 they ranged between 14 and 16 seers. These rates were everywhere decidedly more favourable to purchasers than those which prevailed in the famine of 1876-77, but they were sufficiently high to cause very appreciable difficulty and privation to the poorer classes. The preceding seasons had been good and large local stocks from the surplus yield of the harvests were with cultivators. The imports from other districts into the distressed area amounted to 24,000 tons for the whole period, an amount sufficient to feed $\frac{1}{5}$th of the affected population for six months. As the outturn of the hareest of 1891-92 in the tract was very small, local reserve stocks must have been largely drawn upon. At no time was there a true famine, or an absence of food stuffs, in the three districts, and the tract is now so well served with railways that famine in this sense is scarcely possible.

Failure of relief works to draw.

46. It was at no time expected that the crisis would be as great as that of 1876-77. But it was thought that there would be a great demand for employment, and that the stage of actual famine might ultimately be reached. In this belief extensive programmes of relief works were prepared in the three districts in October and November 1891, and pending their completion, as many ordinary works as possible were kept going by the district boards. In January in each district two or three large relief works, of the nature of metal collection and tank construction on the code system of wages and tasks, were opened by the Public Works Department, and camps were formed for the reception of considerable bodies of labourers. But the attendance was surprisingly small. In Belgaum the number of relief workers slowly rose from 1,900 in January to 3,500 in May. In Dharwar the numbers never exceeded 2,000, and in Bijapur they never exceeded 200. The total expenditure on relief works in the three districts was only Rs. 93,230, and of this Rs. 9,645 was incurred on hutting, and Rs. 37,257 was not strictly relief expenditure, as it was spent on skilled labour employed to complete essential portions of the works.

Reasons for this.

47. The explanation of the failure of the relief works to attract labour, given by the divisional Commissioner and accepted by the Government of Bombay, was that "the general thriving condition of the people and their state of preparedness for contending with an adverse season have undoubtedly been underestimated for years past." He also laid stress on the fact that the liberal Government advances for well-making and clearing of fields from *nuth* grass provided employment in the affected tracts for about 50,000 persons for several months. There was also a large migration of labourers into the surrounding districts where they obtained private employment. Some weight must also be attached to the relative lowness of the scale of wages authorised by the then existing provincial famine code compared with the ordinary wages of the Deccan. The scale authorised by the Bombay code for all classes of relief workers (*i.e.*, persons able to do a full task, persons able to do only 75 per cent. of a full task, and persons able to do only 50 per cent. of a full task) was the money value of $2\frac{1}{4}$ lbs. of grain for a man, 2 lbs. for a woman, $1\frac{3}{4}$ lbs. for a child between 9 and 12, and $1\frac{1}{4}$ lbs. for a child between 7 and 9. This, with grain at 15 seers the rupee gave a cash wage of 1 anna $2\frac{1}{2}$ pies to a man, and of 1 anna 1 pie to a woman. The ordinary cash wage in the affected districts was 3 annas for a man and 2 annas for a woman, and the code

rates were strongly objected to by the labouring classes. In Dharwar the Collector commenced his district board relief works with a cash wage of 2 annas for a man, and 1½ annas for a woman, and 1 anna for a working child, giving no Sunday wage and no allowances for non-working children. He considered that these rates were just sufficient remuneration for able-bodied agricultural labourers called upon to do 75 per cent. of a full task, and were identical with the then minimum labour rate of the district. In November, when scarcity was officially recognised in Dharwar, these rates were under the orders of Government reduced to the code scale. This led to the relief workers abandoning the works, and the rates first fixed were restored and were in force till April. In the other two districts the strict code wages were offered from the first, with the result that in Bijapur the works were virtually unattended, while in Belgaum the workers were chiefly women and children. The Bombay Government seems to have come to the conclusion that the code wage was really insufficient, and in April authorised the district officers to calculate the wage on the several items of the "full ration" of the code. This substantially increased the wages. In Bijapur the Collector increased the man's wage to 1 anna 10 pies and the woman's to 1 anna 5 pies. In Belgaum, where grain prices were much the same as in Bijapur, the Collector's wage-scale based on the revised Government orders fixed the man's wage at 1 anna 7 pies and the woman's at 1 anna 4 pies, with grain at 15 seers the rupee. This difference in the rates allowed in two districts under the same orders illustrates the difficulty of accurately calculating the money value of the small quantities of pulse, oil, salt, condiments and vegetables included in the code "ration." But the noticeable point is that even the higher wage scale of Bijapur had no effect in attracting labour to the works. In Belgaum the attendance increased under the new wage scale, but only to a very small extent. In Dharwar the change in April from the wage scale of 2 annas for a man and 1½ annas for a woman to a wage based on the code ration had the effect of decreasing the number of men labourers and increasing the number of women and children. In Bijapur and Belgaum the women and children throughout were largely in excess of the men. The men seem, in all districts, to have been generally able to find employment at money wages in excess of those offered under the code on the relief works. Non-working children were in no district relieved in large numbers. Attempts were made to feed them in kitchens, but caste objections were so strongly urged by the workers that on most works cash allowances, ranging from 4 to 6 pies, were given to the mothers for their support. The conclusion which the divisional Commissioner, from the above facts, was inclined to adopt was that the Dharwar plan of offering for the performance of a fair task a wage somewhat higher than the code wage without Sunday allowances and with no separate provision for children under 7 years of age, is the most suitable for meeting the preliminary stage of a famine.

Other relief measures.

48. No village gratuitous relief was given, nor were poor-houses established, nor was any appeal made to public generosity for funds for gratuitous help. Rs. 53,525 was spent on allowances to subordinate village officials whose remuneration ordinarily takes the shape of rent free lands. The losses of cattle from failure of fodder were very great. Many thousands were driven to other districts where the Government forests had been thrown open for free grazing. And many thousands were sold at very low prices for slaughter. The land revenue of the three districts was 28¼

lakhs. Of this Rs. 23,888 was formally suspended, and Rs. 27,73,131 realized within the year. There was no case of sale or forfeiture of property. Notices with a view to compulsory process were only issued in the case of persons who after inquiry were found to be able to pay. It is said that collections were made without difficulty, and that in the interests of the revenue payers themselves suspensions would have been a mistake. Rs. 5,82,887 was advanced for agricultural improvements, and Rs. 1,01,378 for seed and cattle. There was a consensus of opinion that fully as much more was spent by the well-to-do cultivators from private capital, that the loans were seldom misapplied, that the work undertaken for the most part proved successful, and that employment was provided for the poorer cultivators and labourers in the neighbourhood of their homes which obviated to a great extent the necessity for regular relief works. "The lesson," wrote the Bombay Government, "conveyed is that agricultural loans are an invaluable resource in dealing with a famine which has not passed beyond the preliminary stage. ..... There must always be a limit beyond which such advances cannot wisely be made. But within this limit there is little doubt that the money so lent, and eventually recovered with interest, yields a better return in the shape of permanent improvements than the expenditure incurred on relief works which are carried on with labour employed under special conditions."

Cost of relief.

49. Exclusive of loans and advances, the total cost of the relief measures was about 1¾ lakhs, of which Rs. 93,230 was expended on relief works, Rs. 53,525 in allowances to village officers, and Rs. 20,000 represents the remissions of grazing fees. That the distress was not acute may be inferred from the small attendance at the works, and from the fact that the public health was good throughout the period and the death-rate normal. "There was also no evidence," writes the divisional Commissioner, "of any general sale of ornaments, such as took place so extensively in 1876-77: and there were few, if any, signs of physical suffering. Not a single death from starvation has come to notice: and it is hardly possible that even one such can have taken place and remained undetected." No cultivated lands were thrown up by the raiyats in any of the districts. There was considerable increase in indebtedness among the poorer agriculturists, but not, it was thought, beyond such amounts as might be cleared off by two or three good seasons. All the district reports mention the fact that, owing to good seasons and the greater thriftiness of the raiyats, there was comparatively little indebtedness among them at the time the scarcity occurred.

Scarcity in Bengal in 1891-92.

50. The rains were very deficient in the months of September and October 1891 in parts of Bengal, especially in Behar and districts lying north of the Ganges. The *bhadoi* or early rain crop was generally a full average, and the districts where this crop is largely sown enjoyed, mainly on this account, comparative immunity from distress in spite of the failure of the succeeding winter and spring crops. The general good harvests of 1890 were another helping fact. The winter rice crop of 1891 in the affected parts of Behar was nowhere above 50 per cent. of an average crop and in the most affected parts it was considerably less. On the high lands the crop in many parts of Darbhanga and Muzaffarpur totally failed. In the cold weather no rain fell till February, and the *rabi* crop was

exceedingly bad in all districts. Fortunately no anxiety was at any time felt as to food supplies. The districts were well stocked and trade was active. Prices of the chief staple grains were high, rice being at 11 and 12 seers and wheat at 12 and 13 seers the rupee throughout the scarcity; but the commoner grains of the early rain crop were procurable at 16 to 20 seers, and this had a great effect in limiting distress.

Extent and cost of relief measures.

51. The districts where relief operations were actually carried on for any length of time were Muzaffarpur, Darbhanga, Monghyr, Bhagalpur, Purnea and Dinajpur. In Muzaffarpur, Darbhanga and Dinajpur about half the total district area in each case was so distressed as to require relief operations. In the Monghyr, Bhagalpur and Purnea districts the distressed area was comparatively small. In all an area of 5,710 square miles with a population of nearly 4 millions was found to require relief. Relief operations commenced towards the end of January or beginning of February 1892 in the several districts, and were everywhere discontinued by the middle of the following August. The expenditure on relief with the exception of loans and advances was borne in the first instance by the several district boards, which, when their funds were exhausted, obtained advances from the local Government subject to future adjustment. In return for their expenditure the boards are said to have obtained nearly the full equivalent in the form of roads constructed or repaired, tanks excavated or improved, and other similarly useful local works. Owing to the system of payment by results or piece-work on which the relief works were conducted, and to the low rates of wages paid, the cost of the work done by famine labour on this occasion is said to have been not much in excess of what it would have been in ordinary years.

District.	Affected area.	Population.	Expenditure on relief works.	Expenditure on gratuitous relief.	Establishment and other charges.	Loans and advances.
	Sq. miles.		Rs.	Rs.	Rs.	Rs.
Muzaffarpur	1,300	1,173,000	67,584	Nil.	11,627	25,816
Darbhanga	1,185	1,500,000	2,03,514	1,541	66,901	31,872
Monghyr	1,066	216,000	4,153	1,167	996	19,089
Bhagalpur	485	283,000	62,067	5,441	6,067	37,181
Purnea, ...	644	261,000	20,578	3,198	2,616	22,690
Dinajpur	1,030	447,000	23,076	4	3,582	5,838
Total ...	5,710	3,880,000	3,80,972	11,351	91,789	1,42,486

Comparison with the 1873-74 famine.

52. The total direct expenditure on wages and doles was under 4 lakhs. In the same districts in 1873-74 a sum of 16½ lakhs was expended in wages and gratuitous cash relief, and 46 lakhs were advanced in the form of imported grain. It is very difficult to make an accurate comparison between the circumstances of the two years, as although the failure of the winter rice crop in the affected districts was probably as great

in 1891 as in 1873, the early rain crop had been better in 1891, and there was not the same apprehension of a failure of food supply, and prices remained at a lower level. At first it was feared that extensive relief operations would be required throughout the Patna, Rajshahi and Bhagalpur divisions, but close inquiries instituted by the Lieutenant-Governor, Sir Charles Elliott, showed that this was unnecessary. In April 1892, after a tour through the affected tracts, the Lieutenant-Governor informed the Government of India that his anxieties were considerably allayed. "The present condition of things," he wrote, "may be described by saying that there is apparently food in the country, and that anyone can feed himself for an anna a day, but that the usual agricultural labour by which the landless classes earn wages is mostly at a standstill and they have to resort to the relief works to earn that anna." After making all allowance for the difference of the crisis it may be said that the comparative economy of the relief measures actually taken in 1891-92 was principally due to the more accurate estimate of the situation made by the local Government in the early stage of the scarcity, to its resolve not to import grain, and to the careful control exercised over the relief works and the distribution of gratuitous relief.

System of relief works adopted.

53. The distinctive feature of the relief works of 1891-92 was the substitution of piece-work or rather payment by results for task-work for all able-bodied labourers, and these proved to be the immense majority of the relief workers. The following instructions on the point were issued. "The system of piece-work is encouraged by section 35 of the code, but only faintly. The reason is that the code contemplates a much worse state of things than at present exists. So far as Sir Charles Elliott has seen, the distress in Bengal has been taken in time. The people are as fit to work and as strong as they ever were. He has not met with half a dozen cases which showed any signs of emaciation or weakness due to hunger. In these circumstances piece-work should be not only encouraged but insisted on as the general rule: probably about nine-tenths of the labourers should be classed as A, and the rest as B and C." The classification of labourers actually adopted was:—(A) Persons who were paid by piece-work, (B) Persons who were paid by task-work, (C) Persons paid by daily wage. Labourers in class A received the full ration wage of the code on performing a given quantity of work, and a corresponding smaller wage if they failed to complete it. They were not permitted to earn more than the full ration wage, nor was any minimum wage secured to them. Labourers in class B were required to do a fair task for people of their calibre for a $\frac{3}{4}$ths wage. If they did less they were fined, but never received less than the minimum wage. Persons in class C were encouraged to do what they could, but their work was not measured, and they received the minimum wage. The following instructions with regard to wages are of interest:—"The mode of calculating the wage, *i.e.*, the full or the portional ration, is elaborately described in Chapter XIV of the Code. It is not however desirable ever to fix the wage in pies, a coin not commonly used in the villages. Nor is it desirable, having once fixed it, to raise or lower it according to any minute variations in the market, that is by less than a pice at a time. Moreover, prices are now so even over the whole distressed area that it seems possible to fix a uniform wage in all districts in Behar and North Bengal, and thus to avoid the danger of emigration from the neighbourhood of home to a district where the labourer may be told he will receive a higher wage. The only difference that it seems

needful to make is this, that where cheaper grains such as *marua*, *kurthi* or *makai* are procurable, and are the customary food of the people, the calculation should be made for a ration compounded of those grains, or for a ration compounded half of rice and half of some cheaper grain." As the average selling price of rice was then 11 seers, and of pulse 12 seers, the following wage scale was evolved :—

	Man.	Woman.	Child (8-14).	Child (under 8).
	Pice.	Pice.	Pice.	Pice.
Class A (full ration wage) ...	6	5	3	2
Class B (¾ths wage) ...	5	4	2	1
Class C (minimum wage) ...	4	3	2	1

This was the scale for districts where coarse rice was the usual food. For districts where cheaper grains were procurable and were the usual food of the labourers, a lower scale was prescribed :—

	Man.	Woman.	Big child.	Small child.
Class A (full ration wage) ...	5	4	3	2
Class B (¾ths wage) ...	4	3	2	1
Class C (minimum wage) ...	3	2	1	1

The great mass of the relief labourers fell into classes A and B, and eventually it was found practicable by a little arrangement of the working parties to do away with the B class and to treat all workers as A class and pay them by results, with the exception of a comparatively small number of infirm persons and very young children who were formed into class C, whose labour was purely nominal, and who were frequently the dependants of the workers. In the Darbhanga report it is mentioned that "As a general rule, persons classed as B by the overseers preferred to be classed as A, working as earth carriers in gangs where the more robust and skilled coolies do the greater part of the digging. The system of blending the skilled and unskilled labourers in gangs is on the whole the most economical. If both A and B workers are worked together, the A class labourer will work to make up for the deficiency of the B class, so that the whole gang may earn the full maximum wage per head, while by a private arrangement the A class man gets the lion's share, or at all events, more than he could earn otherwise under a system of maximum payments." To make this system work the tasks set must have been light, and this seems to have been the case. The comparatively small number of class C or untasked workers is seen in the fact that the wages paid to them only amounted to Rs. 17,431 out of a total wages bill of Rs. 3,80,971. The system of doles or gratuitous relief to dependants of the workers was not introduced, but as mentioned above many dependants got wages for nominal work in class C. It is not clear whether allowances for the Sunday rest were received by the workers, but apparently they were not.

Further particulars as to distressed areas.

54. In the Darbhanga district the distress was greatest and the relief workers most numerous. At the end of April the total number of persons on relief works was 17,700. The number rose to 33,700 at the end of May, and to 47,000 in the second week of June. The daily task for the piece-workers was then raised, as it was found that the full wage was being earned by many gangs by half a day's work, and this along with the advent of the rains reduced the numbers on works to 13,000 by the end of the month. In July all works were closed, as all real distress had ceased and field work was abundant. In the Muzaffarpur district the number of

relief workers in March and April varied between three and four thousand, rising in the first week in June to over 14,000 and falling by the end of June to 4,500. Early in July the works were closed. In Bhagalpur, where there was severe distress in the north of the district, 8,000 persons were on relief works in April, 11,000 in May, and over 12,000 in the first week in June. The numbers then fell rapidly, and in July and August the works were gradually closed. In the other three districts the number of workers was at no time large, the highest figure (4,800 workers) being reached in Purnea in March.

Character of public works undertaken.

55. It has already been said that the relief works were chiefly road repairs and tank excavations, such as a district board in ordinary years executes with the agency of its engineer and his subordinates. As relief works they were similarly managed by the district engineer and his staff, but under the general control of the Collector; and on relief principles. No necessity for undertaking large professional works arose, and the system of payment by results with the low rates of wages was considered to be a sufficient test of want. It was not found necessary to employ the additional test of distance or of enforced residence in a relief camp to which resort has been had in Bombay and elsewhere, when the strict code system of a minimum wage and doles to dependants has prevailed.

Gratuitous relief.

56. Gratuitous village relief was kept within narrow limits. It was most largely given in Bhagalpur where an average of 1,000 persons were so relieved from May to August. In Darbhanga the highest number of persons so relieved was 1,280 in the last week of May. In Muzaffarpur it never rose to 300. The circle relief system of the code was duly adhered to, circle officers were appointed, and enquiries were made in each village as to cases of destitution. Private charity however had not ceased to act and the efforts of the relief officers were directed towards stimulating it. The class (C) on the relief works was also in reality a form of gratuitous relief. "Gratuitous relief" the Darbhanga report stated, "was confined to those persons who from great age, physical decrepitude or extreme weakness, were unable even to go backwards and forwards to the places set apart for C class labour or to raise a stick to break clods."

Death-rate.

57. The death-rate in all the affected districts, and generally also throughout Bengal, was above the normal between January and August 1892. But cholera and influenza were prevalent, and nowhere for any lengthy period were very high death rates reached. The local Government in reviewing the relief operations considered "that in such districts the necessities of the case were fully met by the measures taken. No poor-house relief or suspension of land revenue was found necessary at any stage of the distress. As far as is known, there were no deaths from starvation, and the people generally were as fit to work and as strong as they ever were, and the works carried out were sufficient to afford employment to those who required it."

Scarcity in Upper Burma in 1891-92.

58. The failure of the monsoon rains in Upper Burma in 1891 occasioned great failure of crops and serious distress in the tract known, on account of its scanty and insufficient annual rainfall, as the "dry zone" region of Upper Burma, lying between the 20th and 22nd parallels of latitude. The districts which were more or less affected contain

an area of 30,000 square miles with a population of nearly two millions. But the area of the townships or sub-divisions in which distress was such as to make relief operations necessary was only about one-third of this. Measures of relief commenced in August in the Yamethin and Meiktila districts. The harvests of 1890 had, in these districts, been very poor. The early rice crop of April and May 1891 had failed, the later rice crop had not been sown, and not till August did sufficient rain fall to allow maize and millet seed to be put into the ground. The stocks of food in the hands of the people themselves were nearly exhausted, and rice from Lower Burma was being imported by rail and river. But in Lower Burma stocks were unusually low and in consequence prices ruled high. The relief works which were opened in August were chiefly roads. It was decided that payment for work, instead of being regulated by the provisions of the famine code, should ordinarily be made by the rate of eight annas per 100 cubic feet of earth-work. "This form of payment," the Chief Commissioner reported, "is generally preferred by the people, who work in gangs generally consisting of the people of separate villages under a headman elected by themselves." On the opening of the works people soon began to flock to them, and at the end of September the numbers on the works in the Meiktila district exceeded 10,000. Considerable advances for seed and cattle were also made, as it was found when rain at length fell in August that many of the cultivators had parted with their plough cattle or had no seed. In September and October relief works were opened in the distressed portions of the Yeu, Lower Chindwin, Sagaing, Myingyan, and Minbu districts, but in the Myingyan district only did they attract many labourers. The October rains were on the whole good, more land than was hoped was put under seed, and there was now a chance of a small rice crop and a moderate millet crop. Owing to the employment thus opened to the people in agriculture, the total number of relief workers in the seven districts in which relief works had been started did not at the end of October exceed 13,000. The wage question also received further consideration, as it was found that the all-round contract rate originally fixed enabled the workers in light soil to earn unnecessarily high wages. Excessive daily rates were also being paid. Accordingly, at the end of September maximum rates of 3 annas per man and 2½ annas per woman for task-work were fixed, the price of rice being then about 8 seers the rupee. These were held to represent bare subsistence wages. Piece-work however still continued to be the rule, and with regard to it directions were issued that the rates should so be fixed on each work as would give the workers something more than the bare subsistence rate of wage, and enable them to provide for the relief of children or aged or infirm relations at home. With regard to village relief the myouks, or township officers, were required to discharge the duties of circle relief officers, and to seek out necessitous cases in which gratuitous relief was required. But such cases were rare, and throughout the distress gratuitous relief in the homes of the people was confined within very small limits.

Character of relief works undertaken.

59. In November, December and January the numbers of relief workers fluctuated between 17,000 and 23,000. As no regular programmes of famine relief works had been prepared beforehand in Upper Burma, the civil and public works officers were at first at a disadvantage in selecting the most suitable works for the employment of relief labourers. In a lately acquired country there was, however, ready scope for road making, and most of the relief works first started were of

this description. A still more pressing want was the repair of the numerous tanks and reservoirs which in the late times of anarchy under native rule had been allowed to fall into disrepair. "The districts of Meiktila and Yamethin" wrote the Chief Commissioner in September 1891, "were at one time in possession of a series of fine irrigation tanks which have been allowed to go to ruin in the later years of Burmese rule. This year most of them are without a drop of water. Projects for reconstructing some of these have been under consideration in the Public Works Department, and work is to be started again upon one or two of them in the present crisis. The lesson of the year is that if these districts are to be saved from the risk of constantly recurring scarcity, and are to pay the revenue hitherto drawn from them, we must without delay restore their irrigation systems." This policy was acted upon with the greatest promptitude and vigour. A rapid survey of the districts was made by engineer officers, and as the roads were finished irrigation projects were taken in hand. Many of these were ordinary village tanks which required little professional supervision, and were conducted by the civil authorities through the agency of the village headmen. Others were impounding reservoirs with masonry escapes which required engineering skill, and as projects were prepared and the requisite professional staff obtained, they were at once taken up by the Public Works Department, and relief workers were concentrated upon them with a view to economy and efficiency in supervision. A good deal of work of permanent utility was accomplished in the Meiktila and Yamethin districts during the scarcity, and though the rates paid to the relief workers were higher than are customary on relief works in the Indian continent, they were lower than the prevailing labour rates in Upper Burma in an ordinary year. The experience of a second drought (1896-97) in these districts has, however, shown that the tanks cannot be relied on as famine protective works, as they have no permanent sources of supply, and dry up in bad years.

Discussions as to wages and piece-work.

60. At the end of February 1892 the number of relief workers employed in Upper Burma was upwards of 30,000. The expenditure was large, and the high average wages of the workers attracted the attention of the Government of India. Enquiry was made as to how far these wages and the classification of the workers were in accordance with the prescriptions of the famine code. In reply it was stated that the great majority of the workers were employed on the piece-work system, and that this system was more economical and more suitable to Burma than any other. The labourers, it was said, were all able-bodied and could earn a subsistence wage at rates calculated on this assumption. The wages might seem high compared with the Indian standard, but they were lower than the wages ordinarily current in Burma, and work was being executed more cheaply than would be possible in a non-famine year. The sum that would provide a subsistence for able-bodied men, women and children had been carefully calculated, and on this calculation the rates for piece-work had been fixed so that an able-bodied man, woman or child would by doing a good day's work earn this sum together with a minute margin. The principle of thus fixing wages slightly above what would provide a bare subsistence was defended partly on the score of economy, and partly because it was in accordance with the customs of the people. "If a margin" it was said "were not left to enable labourers to provide for the aged and infirm

Government would have to provide for the latter by village to village relief, or by means of poor-houses, or by both means. The expenditure incurred on these purposes must be considerable and would probably exceed any saving which might be obtained by fixing wage rates so low as to provide no more than a bare subsistence. It is quite certain that the people themselves prefer a system which enables them to support their relatives, to a system under which they would be compelled to leave them to the mechanical benevolence of Government." These arguments did not convince the Government of India. They informed the local Administration that the allowance of a "margin" over a subsistence wage was not in accordance with the principles of the famine code, and that the wages thereby established were unduly attractive. "All margin over the code famine wage," it was laid down, "must be shown as gratuitous relief, and no margin can be allowed where no sick or infirm have to be supported." Extra payments to labourers for maintenance of sick and infirm, wherever such were dependent on them, were not prohibited, provided such extra payment was shown in the accounts as gratuitous relief and not as wages for work performed. In compliance with these orders the Chief Commissioner, on the 8th March, reluctantly issued instructions that in future the wages on a relief work were not to exceed 2 annas 6 pies a day for a man, 2 annas for a woman, and 1 anna 6 pies for a child, these being the amounts which, at then ruling prices, would just purchase the prescribed "full ration" of the code. Hitherto no limit had been set to the amount which a relief worker might earn by piece-work. It was now ordered that no piece-worker was to be allowed to earn more than the above rate. As no margin for the support of the sick and infirm was allowed to labourers under the new system, relief officers were directed to pay particular attention to the work of village inspection and to give gratuitous relief wherever necessary. The reduction of the rate of wages led at once to a large falling off in the number of relief workers. At the end of February they numbered 30,000; and at the end of March they were only 20,000. The change was unpopular with the relief workers and the local Administration was dissatisfied with its effect. After a month's trial this system was again revised, the principle of a "margin" reintroduced, and cash allowances granted for dependants. The "margin" was fixed approximately in the case of the able-bodied expert class of workers at 20 per cent. on the subsistence wage, and piece rates were so adjusted as to allow a family group, by a fair day's work, to earn for each member the prescribed subsistence wage and the "margin." To the less expert workers, who were grouped and employed separately at rates adjusted to their smaller capacity for work, only the bare subsistence wage without a margin was allowed. All classes of workers were also made eligible for the grant of small money allowances for any incapable dependants actually supported by them. These rates were not entirely approved by the Government of India. It was considered in the first place that the money equivalent of the subsistence or code full ration had, on a comparison of actually ruling prices, been placed too high. Further the "margin" allowed to expert piece-workers was considered excessive and was eventually reduced by one half. Lastly the Government of India expressed their apprehension lest the provision as to the granting of cash allowances for dependants would, unless strict supervision was exercised, be abused, as the rules left it to the headman of each gang to certify the number of dependants of each worker. Generally the conclusion drawn by the Government of India from a consideration of the famine expenditure of the local Administration was, that

wages were being maintained at a level which tended to attract labour to the works rather than to remove it from them. "The main object of the code," it was said, "is to provide an adequate test of the need of the people for relief, and so long as the wage provided an adequate subsistence for the labourer, it cannot be considered as otherwise than a desirable result that the people refused to accept it, for it is a proof that they do not really require assistance. The circumstance brought forward of the independence of the Burman and his reluctance to accept a wage which he considers insufficient remuneration for the work rendered by him, does not in any way justify the supply of funds in time of famine for the provision of a more liberal subsistence than would be granted to his fellow subjects elsewhere. The only test that can be properly applied to the wage of the Burman, equally with the Indian famine labourer, is that it shall be fairly sufficient to maintain him in health and strength and not more." By the time these criticisms were recorded, the necessity for relief works had almost disappeared. Satisfactory rains broke in June, the number of relief workers sank to below 10,000, and during June and July most of the works were closed. In August the only works open were in the Shwebo district, and these were closed at the end of the month.

Mortality statistics virtually do not exist in Upper Burma. But it seems clear that the people were in very good case and well looked after, and that the scarcity was not sufficiently severe to occasion exceptional mortality.

Cost of relief measures.

61. The total expenditure on relief works from August 1890 to August 1892 amounted to 14½ lakhs of rupees; on gratuitous relief to Rs. 3,500; and on agricultural loans to 6 lakhs. The returns of relief workers are not sufficiently complete to enable the average daily wage rate to be exactly ascertained. In Yamethin it exceeded 3½ annas a day for all classes of workers for a considerable period; and equally high or higher rates prevailed elsewhere. The object of the local Administration was not only to give relief to the people, but also to get works which were considered to be of great importance to the country completed in a short space of time and at a cost which is said to compare favourably with normal public works rates in Upper Burma. It seems probable that the expenditure on famine relief in 1891-92 was larger than it would have been had it been strictly regulated to the relief requirements of the people. In the late famine of 1896-97 in the Meiktila and Myingyan districts, which was much worse and accompanied by higher prices than the scarcity of 1891-92, the average daily wage of all classes of workers on the Meiktila-Myingyan railway, the chief relief work, works out to a fraction over 2 annas per worker. The code task-work system was adopted throughout on this work and appears to have answered very well. Had higher rates been paid and piece-work been allowed, a larger proportion of able-bodied men would in all probability have been attracted to the works, who, as it was, temporarily migrated to Lower Burma and there earned good wages. More work would have been done and possibly the cost per 100 cubic feet might have been reduced by the greater efficiency of the labour. But the famine relief expenditure would have been increased. The policy of the local Administration in 1896-97 was to do nothing to check migration, whereas in 1891-92 the policy appears to have been to make it unnecessary. The policy of 1896-97 is unquestionably the right one in the special circumstances of the "dry zone."

Scarcity in Ajmere-Merwara, 1890-92.

62. In 1890-92 severe distress was experienced in the British districts of Ajmere-Merwara, covering an area of 2,710 square miles and containing a population of 543,000. The adjoining native states were similarly affected in a greater or less degree. In the first period, dating from the deficient monsoon rains of 1890 and the consequent failure of the rain crops of 1890 and the *rabi* of 1891, distress was chiefly confined to the Todgarh sub-division of Merwara, and to the southern portion of Ajmere, and nothing more than moderate scarcity prevailed. But with a still more pronounced failure of the monsoon of 1891, and of the *kharif* and *rabi* crops of 1891-92, distress became severe and general and was not alleviated until the bounteous autumn rains of 1892 restored agriculture to its normal course. The average annual rainfall of the tract is small, being a little under 21 inches. In 1890 only 12 inches fell in Ajmere and 13½ inches in Merwara. In 1891 the Ajmere rainfall was only 8½ inches and that of Merwara 10½ inches. In neither year did a sufficiently heavy fall of rain occur at any date to fill the irrigation tanks on which much of the cultivation depends. The estimates of the four harvests dependent on the rains of these two years place the yield in the two districts at about one quarter of the average. Grass, fodder and water also failed. Many of the cattle were driven off to more favoured districts in Meywar, and many died. The losses on this account fell even heavier on the agriculturists than the loss of crops, and when the monsoon rains of 1892 came, great difficulty was experienced in placing the normal area under the plough. In its intensity and duration the drought of 1890-92 was as great as any of the great droughts which have visited this tract of country in the past, among which the drought of 1812-13, the drought of 1847-48, and the drought of 1868-70 are the most memorable. The one differentiating circumstance was the railway which links Ajmere with the outer world, and which, in 1890-92, brought ample supplies of food into the country and prevented prices from ever rising to a famine level. In the first period of the scarcity (October 1890 to July 1891) barley ranged from 18 to 20 seers the rupee. When the second year's failure of the rains occurred, in July 1891 the price rose to 14 seers the rupee, and ranged from 13 to 16 seers from July 1891 to March 1892. With the ingathering of the spring harvest of 1892 prices again became easier and hovered about 16 seers until September 1892. In the 1868-70 famine grain rose to 3 seers the rupee, and men with money in their hands died in Ajmere from want of food.

First period of relief.

63. Relief works were opened in Merwara in October 1890 through the agency of the Department of Public Works, and as they attracted labour, and distress was reported to be severe in the Todgarh sub-division where the crop failure had been greatest, they were gradually increased in number until 18 were open in January, supporting a daily average of 2,161 persons. More works were opened in other portions of the Merwara district month by month, and in June 1891 there were 39 works in progress on which 5,000 labourers were employed. In July and August the numbers fell off as the rains, though scanty and intermittent, provided agricultural work. In Ajmere during this first period relief took chiefly the form of Government loans under the Land Improvement Loans Act to the semi-feudal estate-holders or *istimrardars*, who own about half the land in the district, to enable them to give employment to their tenants. Rs. 67,000 was thus

advanced. To the Government raiyats or cultivators, holding direct from Government in the *khalsa* (as distinguished from the *istimrari*) portion of the district, Rs. 61,000 was similarly advanced. No regular relief works were opened, though there was some expansion of ordinary public works. The number of labourers so employed up to the end of September 1891 varied from 1,000 to 1,500 a day. In both districts from the beginning of 1891 relief circles were formed in accordance with the prescriptions of the code, the patwari's circle being the minor unit or "local area," and the kanungo's circle the major unit or "relief circle." But during the first period the duties of these officials as relief officers were confined to ascertaining and reporting the condition of the people, and gratuitous relief to the necessitous incapable poor in villages was not started till the second period.

Second period.

64. The second period commenced with the serious grain riots in Ajmere in September 1891, in consequence of the failure of the rains, rising prices and growing distress. Up till then a halting policy had been impressed on the district authorities in the hope that the season would improve. The riots showed that relief could be no longer delayed. Relief works were hurriedly opened throughout Ajmere and fresh loans granted to the *istimrardars* and the Government tenants. In Merwara additional works were opened. The numbers on the works rose in Ajmere from 1,430 persons in September to 6,524 in October, and in Merwara from 2,598 to 4,223. In December 10,619 persons were on the Ajmere relief works and 8,787 in Merwara. From October 1891 the existence of famine was officially recognised and the prescriptions of the local famine code were put in force in both districts. Special civil and public works establishments were entertained, the relief-circle arrangements improved, and village gratuitous relief commenced. The numbers on relief works steadily rose during the first six months of 1892. In Merwara where the distress was greatest, the rise continued to July. The abrupt fall in August and September was hastened by the gradual reduction of the wage, the closing of small works, and the exaction of piece-work, when the rains were seen to be good and prices became easier. From the 1st October the minimum code wage only was allowed on the works, and from that date they were practically closed.

	Ajmere.	Merwara.	Total.
January	... 9,962	7,220	17,182
April	... 19,690	7,947	27,637
June	... 22,732	11,181	33,913
July	... 14,613	13,942	28,555
August	... 3,032	6,125	9,157
September	... 423	1,897	2,320

Character of the relief works.

65. In both districts throughout the scarcity the relief works, with unimportant exceptions, were under the professional management of the Public Works Department. Most of the works were of permanent utility, such as irrigation tanks and roads, which would eventually have been undertaken in the ordinary course of events from district funds. Owing to the enforcement of the piece-work system as far as possible on the relief works and the lowness of the rates compared with the normal rates for labour, the works were, it is stated, executed at a cost little in excess of the sanctioned estimates. But in this comparison the so-called "infructuous outlay" on the wages of the weakly gangs appears to have been deducted from the total public works expenditure, of which it represented $\frac{1}{10}$th. In Ajmere relief labour was more concentrated and residence on the works more general than in Merwara, as several large irrigation reservoirs, on which many hundreds of labourers were accommodated in relief camps, were

undertaken. In Merwara the works were more numerous and scattered, and only a small proportion of people from outlying villages lived on the works. In both districts the dislike of the petty agriculturists to leave their homes and reside on the relief works was marked. "They invariably," the official narrative states, "prefer to walk 10 to 12 miles daily, which exhausts them and renders them less fit for work. . . . . They and their families will live for months on less than famine rations, and the result is famine diarrhœa or debility or death, ascribed to cholera and fever." A few small relief works were undertaken by the civil authorities for the relief of special localities or the employment of weak persons. But in no month did the number of labourers on such works in the two districts reach 300. Weakly and inefficient labourers were as a rule given nominal employment with the minimum wage on the departmental relief works, though their presence there was disliked by the Public Works officers on the ground that they did no real work and raised the cost of the works.

Discussions as to relief wages.

66. The question of task and wage was much discussed during the progress of famine operations, and the regulations were several times altered. Broadly speaking, payment by results or piece-work was the rule, and task-work the exception; and the alterations made at various times were mainly concerned with the wage scale and the employment and remuneration of inefficient labourers. When works were first opened at the end of 1890, it was thought sufficient to offer employment to family gangs at rates calculated to give the man a daily wage of $2\frac{1}{2}$ annas (subsequently reduced to 2 annas), the woman $1\frac{1}{2}$ annas, and the child 1 anna or less according to size. These rates were something below the normal district rates for unskilled labour. Under the system the average daily earnings of the piece-workers were slightly in excess of what they would have received, had their wages been strictly regulated by the famine code. The system did not make provision for the residuum of weakly labourers who were found to require relief, and after some controversy the Public Works Department had to acquiesce in finding them employment on light labour on a wage of one anna a day. When the rains of 1891 failed and famine conditions unmistakeably commenced to prevail, the famine code was directed to be applied to the relief works. This necessitated the calculation of the cash value of the "full ration" of the code with reference to current prices, and the calculation with barley flour at 12 seers the rupee (barley grain being at 16 seers) made the wage 1 anna 9 pies for a man, 1 anna 4 pies for a woman, and the child's wage 8 pies to 1 anna 3 pies according to age. Piece-work as an optional system was continued, and rates were so fixed as to give the piece-workers for a day's work the above wages with a "margin" of 3 pies. If the earnings exceeded these standards, the rates were reduced. Able-bodied labourers who refused piece-work were put to task-work on three-quarters of the full code wages. Where the work was such that piece-work was not possible, such as hard rock cutting, the full code wage on performance of a fair task was paid to able-bodied labourers. Weakly labourers, capable of doing light work, received on some works the full wage and on others the three-quarters wage. Special gangs of old men and women doing nominal work received the minimum wage. Besides these relief workers proper, a good many skilled professional labourers seem to have been employed for the masonry work of tanks and for expediting works which had to be finished before the rains. According to the view of the Government of India such labour should

not have been charged to famine relief at all, but the matter was not finally settled until a late stage of the famine. Up to April 1892 all such labourers formed class I of the relief workers and their wages were practically whatever was found necessary to secure their services. Class II comprised the able-bodied unprofessional piece-workers. Class III comprised the able-bodied labourers on task-work on the full or three-quarter wage, and the weakly labourers capable of light work. Class IV comprised the infirm and aged whose work was purely nominal. Children too young to work were gratuitously relieved, a small cash allowance (in Merwara 3 pies per child) being given to the parent.

Piece-work.

67. From various causes the piece-workers were in a minority on the works, and this was more especially the case when the skilled professional workmen were removed from the category of relief workers. The classification of the relief work population in Merwara on the 11th June 1892 is given in the margin. In Ajmere and Merwara combined the piece-workers in May, June and July 1892 were approximately one-fourth of the aggregate number of workers employed; another fourth of the workers were in receipt of the three-quarters code wage or the minimum wage; and one-half were on the full code wage. The full code wage was found to be "ample to sustain an able-bodied man woman, and child in good physical condition while doing a full day's labour." As regards the three-quarters wage it was thought to be attended with risk. It was reported from Merwara that "the three-fourths wage was not sufficient to afford the slightest margin," and that labourers who endeavoured to support, not only themselves, but their households on it deteriorated. This is not conclusive, however, as to the insufficiency of the wage in itself. The piece-work system, so far as it was applied, seems to have been successful. In the opinion of the Public Works officers more of the workers might have been paid by results with advantage both to themselves and to the economical prosecution of the works. There was undoubtedly great difficulty in exacting a proper task from the task workers, partly on account of the insufficiency of the works establishments, and partly because the population of the tract is not naturally laborious. In these circumstances the full code wage made the so called task-work attractive, while if the three quarters wage was given, there was, in the opinion of the civil officers, a risk of the health of the workers suffering.

	Class I.	Class II.	Class III.	Class IV.
Men	107	1,733	1,744	148
Women	*Nil.*	1,278	1,772	450
Children	*Nil.*	674	1,943	*Nil.*
	107	3,685	5,459	598
Children gratuitously relieved	...	...	...	2,292
	107	3,685	5,459	2,890

Total = 12,141

Gratuitous relief.

68. Village gratuitous relief was given in both districts from the close of 1891 to October 1892, on lists prepared by the patwaris and checked by the circle inspectors. The persons so relieved did not in any month exceed a daily average of 1,000 in Merwara and 1,300 in Ajmere. The fact that this represented less than ½ per cent. of the total population is evidence of the close limits within which this form of relief was kept. In Ajmere the local officers are said to have worked the system extremely well. "There is no doubt that the adoption of the poor-house system would have been much more expensive and much less effective." In

Merwara the village relief was also considered "more suited to the people than compulsory poor-house relief." Had it not been given "many deaths would undoubtedly have occurred." In both districts poor-houses were established, but were used only for the relief of starving beggars and for maintaining discipline on the relief works. "Home labour" in the form of weaving, winding, and spinning was provided on a considerable scale in the towns of Ajmere and Nasirabad, where the population is largely Mahommedan, for *parda nashin* women, deserted widows and children, and other destitute persons who, by reason of caste or otherwise, were unable to come to the relief works. The total expenditure amounted to Rs. 77,500, of which Rs. 36,400 was expended on wages, and Rs. 41,192 on materials. The recoveries from sales of work amounted to Rs. 40,525.

Cost of relief.

69. The total expenditure on relief works (including establishments) amounted to Rs. 12,38,000. On village gratuitous relief, poor-houses and home relief, a further sum of Rs. 1,03,000 was expended. Rs. 26,000 was spent on special civil establishments and Rs. 47,000 of land revenue remitted. In addition to a total irrecoverable expenditure of Rs. 14,14,000, land revenue to the amount of Rs. 1,03,000 was suspended, and Rs. 6,08,000 advanced as loans to land-holders and cultivators. The outgoings on account of the famine thus amounted to $21\frac{1}{4}$ lakhs in a tract of which the population is little over half a million and the land revenue under 5 lakhs. In the 1868-70 famine the Government expenditure was 15 lakhs, but over one-quarter of the population died or disappeared. In the 1890-92 famine there was no increase in the recorded death-rate until October 1891. For the 12 months ending the 30th September 1892 the deaths from all causes were 15,852, or excluding cholera and small-pox, both of which diseases were very prevalent, 12,408. In the two years preceding the famine the deaths from all causes averaged 10,750, or 9,579 excluding cholera and small-pox. The recorded death-rate from all causes thus rose from 20 to 30 per mille, or exclusive of cholera and small-pox from 18 to 23 per mille. These death-rates are so low as to suggest imperfect registration. But taking the recorded increase to indicate the proportional increase of mortality during the famine period, it is not higher that might be expected in a prolonged period of agricultural disaster.

Wage rate too liberal.

70. The administration of the Ajmere-Merwara famine of 1890-92 was considered at the time by the Government of India not to have been satisfactory in all respects. There was no question as to the distress having been taken in time or as to the general sufficiency of the measures of relief adopted. But the impression formed was that, owing to the desire of the district authorities and the Department of Public Works to complete the important irrigation and road works which had been undertaken for relief purposes, many skilled professional workmen had been entertained at high wages and improperly classed as relief labourers, and that in the matter of "home labour" and gratuitous relief, and the wage-rates of persons who refused to accept piece-work, the conditions of relief had been made too indulgent. These criticisms applied chiefly to the relief administration of the Ajmere district. As regards the wage-expenditure on the relief works there can be no doubt that able-bodied skilled labourers were

remunerated considerably in excess of the full famine code wage. In the Ajmere district one-third of the total number of relief workers were permitted to earn wages in excess of the full wage; and the average wage earned throughout the famine in that district by the labourers amounted to 2·3 annas. The experience of the 1896-97 famine, when grain was fully one-fourth dearer than in Ajmere in 1890-92, seems to show that the average daily wage need not exceed 1 anna 9 pies. The principle eventually laid down by the Government of India in the Ajmere and Upper Burma famines of 1890-92 that skilled labour employed on works, the completion of which is desired on other than famine relief grounds, must be charged to ordinary public works and not to famine relief, is obviously correct. The further principle was laid down that the earnings of such able-bodied relief workers as were permitted to work at piece-work should be limited to the famine wage *plus* a minute margin.

	Total number of relief workers excluding dependants.	Wage expenditure.	Average daily wage.	Percentage of classification of relief workers.		
				Above famine wage.	Full famine wage.	Below full famine wage.
		Rs.	As.			
Ajmere ...	4,680,000	6,86,169	2·3	32	40	28
Merwara ...	3,780,000	3,99,751	1·7	20	48	32
TOTAL ...	8,460,000	10,85,920	2·05	27	44	29

Was relief given excessive?

71. The question whether relief was given in excess of the actual needs of the people is a difficult one. The total population of the Ajmere district is 422,000. But the population of the *istimrari* area is 183,000 and of the urban area 97,000, leaving 143,000 as the population of the rural *khalsa* area. This latter was further reduced to 125,000 by emigration. The urban area did not furnish relief workers, and the *istimrari* area not more than 2,000 at the time of maximum pressure. The rural population of Merwara is 99,000, which was reduced to 95,000 by emigration. Excluding the relief workers who came from the *istimrari* portion of the Ajmere district, the figures in the margin represent the average daily number of persons on relief from 1st April 1892 to 31st July 1892 in each district outside the urban area, for which latter special relief in the form of "home labour" and poor-houses was provided. Relief was therefore given to 18 per cent. of the affected population in Ajmere and 16 per cent. in Merwara, and this in addition to the relief indirectly given by Government loans and advances. The ratios are high, but they have been exceeded in other famines in other tracts. The numbers gratuitously relieved are comparatively low. There is ample evidence that a large proportion of the population was in absolute want of food and must have died had not relief been afforded, and that even the relief given did not prevent a considerable rise in the death-rate. The inference seems to be that, apart from the public works policy adopted, the relief measures did not err greatly if at all on the side of extravagance.

	Ajmere.	Merwara.
Relief works ...	17,500	12,000
Dependants ...	2,800	1,800
Gratuitously relieved in villages.	1,200	700
	21,500	14,500
Population affected ...	125,000	95,000
Percentage relieved ...	18	16

Comparative table showing extent and cost of famines described above.

72. The following table shows the area and the population affected, the maximum number relieved on any one day, the sum expended on relief of different kinds, the loans and advances made to the landed classes, and the suspensions and remissions of the land revenue demand in each of the famines or scarcities dealt with in the foregoing narratives, so far as data are available for such a statement :—

Province affected.	Year of the famine or scarcity.	Area affected in square miles.	Population affected.	Maximum daily number employed on relief works.	Maximum daily number relieved gratuitously.	Cost of relief works.	Cost of gratuitous relief.	Advances and loans.	Suspensions of revenue.	Remissions of revenue.
						Rs.	Rs.	Rs.	Rs.	Rs.
Punjab	1884	...	...	4,620	...	.....	.....	70,000	7,68,000	...
Lower Bengal ...	1884-85	970	472,000	20,800	...	.....	1,08,100	2,41,900	...	...
Madras	1884-85	3,000	...	...	...	1,90,000	.....	.....	...	...
Central Provinces ...	1886-87	...	...	...	...	.....	.....	.....	...	...
Behar	1888-89	1,000	...	42,000	4,000	Three lakhs on works District Boards spent	and gratuitous relief, two lakhs on works.	3,00,000	...	...
Orissa (Tributary States)	1889	...	100,000	900	2,700	41,000 (Including some gratuitous relief.)	15,000	.....	...	...
Madrac (Ganjam) ...	1888-89	2,500	1,100,000	21,000	104,000	6,09,000	3,50,000	1,70,000 (Includes advances to weavers.)	3,00,000	2,68,000
Kumaun and Garhwal	1890	...	...	...	...	.....	.....	1,85,000	...	...
Kumaun Division and Dehra Dun.	1892	...	...	...	...	.....	.....	1,64,933	...	...
Madras	1891-92	22,700	...	92,583	6,961	16,53,177	64,977	34,14,639	...	45,67,391
Bombay (Deccan) ...	1891-92	9,484	1,467,000	5,700	...	93,230 (Includes Rs. 66,630 spent by District Boards.)	53,525, (Given as allowances to village officials.)	6,84,265	23,888	...
Bengal and Behar ...	1891-92	5,710	3,880,000	77,800	2,580	Special establishment. 3,80,972 91,789 Total 4,72,761	11,351	1,42,486	...	...
Upper Burma ...	1891-92	10,000	800,000	30,000	...	14,50,000	3,500	6,00,000	...	...
Ajmere-Merwara ...	1890-92	2,710	543,000	33,913	...	On special relief in the form of weaving etc. ... 12,38,000 77,500 Total 13,15,500	1,03,000	6,08,000	1,03,000	47,000

CHAPTER III.

DIFFERENCES IN THE PRESCRIPTIONS OF THE PROVINCIAL FAMINE CODES.

Duty of the Commission to examine the differences in the prescriptions of the famine codes.

73. The first duty assigned to us in the Resolution appointing the Commission is to examine the manner in which the prescriptions of the famine codes of the several provinces differ from one another, and in which their prescriptions have been departed from. In a memorandum which will be found among the appendices to our report we have shown chapter by chapter the main differences that exist in the several provincial codes, and in the fourth chapter of our report we have discussed the departures from the codes that have been made during the recent famine. The codes we have dealt with are those of Bengal, Madras, Bombay, the North-Western Provinces and Oudh, the Punjab, the Central Provinces and Burma.

Origin of the existing codes.

74. The history of the evolution of these codes is as follows. In 1883 the provisional code was promulgated with the Government of India Resolution No. 44-F., dated the 9th June 1883. The code was declared to be distinctly provisional, and permission was given to local Governments to follow the example already set by Madras and to frame provincial codes of their own. In course of time separate codes were prepared and sanctioned for the different provinces. In 1889 the Government of India deemed it expedient to subject the procedure founded upon the provisional code of 1883 to fresh scrutiny in the light of the experience gained in various parts of India since that time, and accordingly Resolution No. 63—77-C., dated the 19th December 1889, was issued asking for the opinion and advice of local Governments and Administrations on the working of the existing codes and more particularly on certain points specially mentioned as deserving consideration. Orders on these points were issued by the Government of India in September 1891, and local Governments were asked to submit copies of rules drafted in accordance with the instructions issued for incorporation in the provincial codes. Further orders were from time to time issued by the Government of India on points that had arisen, and again by a Resolution of 24th August 1893 each province was required to submit a revised draft famine code based on the lines of that and the previous Resolutions. The revised codes called for in the Resolution of August 1893 were in due course submitted by local Governments and sanctioned by the Government of India, and they constitute the codes with which we are now dealing. They follow, with one or two exceptions in the case of Madras and Burma, a uniform system of division into chapters prescribed by the Government of India. It is interesting to connect the changes introduced into the codes after they were first framed with the experiences that were gained in the scarcities and famines an account of which is given in the preceding chapter. These scarcities or famines, it will have been observed, fall into two more or less distinct groups. The first group comprises the series of scarcities commencing with the Punjab scarcity of 1884 and terminating with the more serious Ganjam famine of 1888-89. The second group embraces the period from 1890 to 1892 when

relief operations were required in Madras, the Bombay, Deccan, Bengal and Behar, Burma and Ajmere-Merwara. Of these latter scarcities the gravest was that of Madras in 1891-92. The resolution of 1889 was issued with a view to collating and codifying the experiences gained in the first group of scarcities. The subjects specially dealt with then were the functions of the Agricultural Department in connection with the system of furnishing general information on agricultural matters, and its responsibility for special inspections in tracts menaced with famine; the duties of village officers and other subordinates in the matter of reporting on the condition of their villages and circles; the extent to which a rise in prices should be accepted as a famine warning; the utilization of forests; the maintenance of a scheme of famine works; and the relative advantages of a money dole, a grain dole and cooked food for purposes of gratuitous relief. The necessity for securing more reliable and certain information as to the probable occurrence of distress was illustrated by almost all the scarcities or apprehended scarcities occurring between 1884 and the Ganjam famine of 1888-89, and more particularly by the experience of the scarcity in the Orissa Tributary States in 1889. The experience gained has resulted in the provisions of the existing codes dealing with this matter. It was the occasion of the Ganjam famine of 1888-89 which brought prominently to notice the fact that distress might become very general and severe without prices reaching what was considered to be the "scarcity rate," and this resulted in the provision of the codes requiring the submission of special reports when local prices rise by a certain percentage above the normal. And the same famine brought into prominence the question of the relative advantage of cooked and uncooked food in gratuitous relief, and the desirability or otherwise of confining departmental public works to able-bodied labourers only. The Madras Government expressed a preference for cooked food, and the preference then given is still retained in the provincial code. The result of the second group of famines was to bring under consideration the relative advantages of piece-work and task-work, the treatment of dependants and the restriction of the wage earned to a subsistence wage and nothing more. The experience gained in Burma and Ajmere-Merwara called particular attention to the wage question and the possibility of works being made too attractive. The Resolution of August 1893 contained the orders of the Government of India on the points that had arisen. By these orders the use of the terms 'professional agency' and 'civil agency' in connection with relief works was abandoned, and it was directed that in future all works should be primarily distinguished as 'ordinary' and 'relief,' the cost of the latter only being debitable to famine. On the other hand relief works were divided into two classes 'small' and 'large' with reference to numbers of workers, and not to the agency of management. The classification of relief workers as (1) professional labourers, (2) labourers, but not professional, (3) able-bodied, but not labourers, and (4) weakly workers, was adhered to, and it was determined that as the system advocated in the provisional code of forming relief workers into gangs had proved successful, workers after having been duly classified should be formed into gangs and a task prescribed for each gang, on the performance of which in whole or in part each member of the gang should be entitled to the wage prescribed for his class in whole or in part in proportion to the amount of the task performed by the whole gang. The tendency of these orders was to abolish the original plan of so far as possible employing all the able-bodied on piece-work and allowing them to earn thereby something above the full ration wage by doing a full task. The use of

the term 'piece-work' in the codes was forbidden in future on the ground that piece-work or payment by results in famine operations, as distinguished from piece-work in the ordinary sense of the term, must be limited by the estimated and not the actual capacity of those employed. The sufficiency of the minimum ration which had been questioned was reaffirmed, but at the same time the method of calculating the wage from the ration known as the 'grain-equivalent' method was introduced, and this practically allowed some increase in the scale wages. Permission was also given to local Governments, under certain conditions, to relieve the non-working children and dependants of relief workers by means of allowances to the working members of the family, though for many reasons the Government of India preferred that whenever practicable such persons should be separately relieved by the distribution of grain or of cooked food in kitchens.

The differences in the various codes not very material.

75. In the circumstances it might be expected that the differences in the various codes would not be very material, and such we find to be the case. Compiled as they are on a uniform system and based upon definite instructions issued from time to time by the Government of India and subsequently criticized and revised by that authority, it could hardly have occurred that any important departure in point of principle would find a place in any of the codes. Such differences as exist are mainly in matters of detail, and for the most part are due either to the varying conditions of the different provinces or to the individual methods of drafting adopted. We have not therefore thought if desirable to burden our report with a lengthy description of these differences, though such an account will be found in our appendices. The memorandum setting forth the existing differences is in half margin, and wherever in the succeeding sections of our report we have made any recommendation, a reference to that recommendation is made against the appropriate paragraph or paragraphs of the memorandum. The remarks we have to make in this chapter will therefore be brief, and of a more or less general nature.

General scheme of a famine code.

76. The general scheme of the famine codes is as follows. The first chapter prescribes the preparatory or precautionary arrangements to be permanently maintained in ordinary times. The main object of these prescriptions is to ensure the maintenance of efficient channels of information by means of which the approach of scarcity or famine may be detected in good time, and to provide for a state of preparedness in respect to measures of relief when the emergency arises. The second chapter deals with times when the information received indicates the imminence of scarcity or famine, and prescribes the special reports to be then submitted and the preliminary action to be taken. The other chapters, usually thirteen in number, prescribe the duties of all officers concerned when scarcity or famine is actually present, and the various measures of relief to be taken.

Obligations of local Governments and their officers in ordinary times.

77. In the chapters dealing with times previous to famine, the differences that occur in the various provincial codes are not very material. All provinces are not administered on identically the same lines, and the administrative agency employed by Government varies according to the circumstances of each province. As it is on the ordinary administrative agency of each province that the obligation

is imposed of being prepared to anticipate and meet distress, it follows that the provisions of this part must be moulded so as to fit in with the existing machinery. The general scheme provides in these chapters for periodical reports by the subordinate agency available as to crops, rainfall, health of cattle, and all other circumstances affecting agricultural prospects; and also for special reports when local retail prices rise by a certain percentage above normal rates. It imposes upon Commissioners of divisions and District Officers the duty of receiving and forwarding these reports, and of keeping themselves fully acquainted with the condition of the people of their respective charges. The same officers are also primarily responsible for maintaining statements of areas liable to famine and effective programmes of relief works for use within these areas. It prescribes periodical inspection of such areas by the Director of Land Records and Agriculture, and the maintenance in his office of a proper system of compilation of facts and statistics bearing on the agricultural circumstances of every tract in the province. When indications of the approach of scarcity or famine are observed, special reports are required and special precautions are directed to be taken. In every code this scheme is generally adhered to, though the details vary. For example, in most provinces the duty of submitting periodical reports as to the crops, the weather and the condition of the people is laid upon the subordinate revenue agency, but in Bengal it is laid on the police for the reason that Bengal being a permanently settled province there is no suitable subordinate revenue agency there. Again, in Madras there are no Commissioners of divisions, and in place of a Director a Member of the Board of Revenue is in charge of the Department of Land Records and Agriculture. Such Member therefore to some extent performs duties which fall upon Commissioners of divisions in other provinces. As regards special reports on fluctuations of prices, the usual practice is to require such a report when the variation above normal amounts to 20 per cent; the code of the North-Western Provinces prescribes 25 per cent., and that of Madras 25 per cent. in the case of rice and 33 per cent. in the case of other food grains. The details of the provisions regarding the preparation of statements of areas liable to famine and relief programmes differ considerably, the responsibility attaching in varying degrees to the District Officer, the Commissioner, the Agricultural Department, and the officers of the Public Works Department.

Conduct of relief measures. Duties of superior revenue and engineer officers during famine.

78. When famine or scarcity has been declared and relief measures have to be introduced, it is necessary to prescribe the agency by which they will be carried out and to define with more or less precision the degree of responsibility attaching to the different classes of officers who are employed. This is mostly done in the chapter treating of the duties of superior revenue and engineer officers during famine. The general scheme is to make the administrative area called the district the unit of famine relief administration, the District Officer, subject to the general control of the Commissioner of the division, being the agent of Government for carrying out the measures of relief that may be determined on. The District Officer is responsible for exercising general supervision over all works and arrangements for giving relief within his district and for their efficiency, and officers of all departments employed on famine duty within the limits of his district are subject to his orders on all points except those of a strictly professional nature. In addition to the staff ordinarily at his disposal for the current administration of his district,

including as it does officers of such departments as the Revenue, the Police and the Medical departments, it is mainly through the agency of the officers of the Public Works Department and of the establishments of Local Bodies constituted by law within the district that the District Officer carries out the measures of relief. All the codes define the position of the District Officer as indicated above, but in the Central Provinces code the definition is not so distinct, and is not given in one place. They also provide for the general controlling authority of the Commissioner of the division, but the duties imposed on this officer are expressed in varying terms. In Madras, where there are no Commissioners, the Member of the Board of Revenue in charge of Land Records and Agriculture takes their place and is *ex-officio* Famine Commissioner, if no special officer is appointed, and responsible for the direction of all branches of relief subject to the orders of Government. The Bombay code contemplates the appointment of a Famine Commissioner in whom shall be centred the responsibility of directing under the orders of Government all branches of famine relief, and failing such an appointment it leaves to Divisional Commissioners the chief executive control under the orders of Government. The other codes do not provide for the appointment of a Famine Commissioner. While all the codes recognise the powers and obligations of Local Bodies, the provisions regarding their executive position in famine relief and their liability to incur expenditure under this head are not identical. In some of the codes (Bengal, North-Western Provinces, Madras, Punjab, Central Provinces) District Boards are deemed to form an integral part of the administration and to be the primary agency for coping with famine, to which object they must subordinate the ordinary objects and methods of their expenditure. The Bombay code merely says that the Collector should utilize as far as possible the agency of District and Municipal Boards and Local Committees, while the Madras code says they are to devote their funds to famine relief so far as the law permits. The law bearing on the subject varies in different provinces. As regards the extent to which the Public Works Department, as a department, is to have control of famine relief works, and as to the authority and powers of engineer officers of the department employed in immediate charge or supervision of such works, the provisions of the codes, though generally similar, are not uniform and in many respects not precise. The general scheme seems to be to relieve the Chief Engineers of all but certain defined and limited duties in respect to these works, and to confine the directing powers of Superintending Engineers mainly to professional matters. On all points not strictly professional it seems intended that Superintending and Executive Engineers should work in co-operation with, and to a large extent in subordination to, the Commissioners of divisions and District Officers. It seems also intended by some of the codes that officers of the Public Works Department should only be employed on what are defined as large works. The position assigned to the chief revenue authority in regard to famine relief administration varies greatly in the different provinces. In Bengal and the North-Western Provinces the Board of Revenue finds no place. In Bombay there is no Board of Revenue, the Commissioners of divisions working directly under the Government. In the Punjab the Financial Commissioner conducts the preliminaries and is consulted on matters of principle, but does not control famine operations. In Burma the Financial Commissioner is throughout given a prominent position in the administration of famine relief.

Circle organization.

79. Circle organization is the system by which affected districts are divided into circles of convenient size for relief administration, each circle being placed under a Circle Inspector. All the codes provide for this organization and contain rules suited to existing administrative arrangements. The size of the circle, the class of officer ordinarily to be appointed Circle Inspector and his detailed duties, and the extent to which the services of such village agency as exists are to be utilized, are matters regarding which there must be difference of treatment in the codes in conformity with the ordinary administrative arrangements of the provinces. The main object of the organization is to provide an effective machinery for the distribution of gratuitous relief at the homes of the people, but a further and no less important object is to ascertain by personal inquiry the real condition of the people, to judge to what extent the measures of relief introduced are effecting their purpose, and to see that all who require relief in any of the approved forms are really able to get it. Most of the codes appear to contemplate that the circle organization should take place at an early stage of the distress, though this is not always stated The Madras code on the other hand does not contemplate the organization until a later and severe stage of distress is reached.

Gratuitous relief.

80. In the chapter dealing with gratuitous relief, by which term is generally meant gratuitous relief at the homes of the people, the codes define the persons who are eligible to receive such relief, and prescribe rules as to the manner in which the relief is to be given, that is to say whether in grain or in money, and the amount of the dole. The persons eligible to receive relief are in general effect practically the same in all the codes, though there are differences in the definitions of some importance which are given in the memorandum in our appendices. They are persons having no relatives able and bound by the custom of the country to support them, who are incapacitated by physical infirmity, or by their presence being absolutely necessary at home to attend on the sick or infant children, from earning a subsistence on relief works. The prescriptions of the codes are not uniform, and generally not precise, as to the stage of the distress at which the distribution of this relief should be commenced. The Bengal code contemplates its commencement as a general rule as soon as relief works have been opened and are found to attract labourers, while the Bombay and Punjab codes are not clear on the subject. The North-Western Provinces and the Burma codes leave it to the District Officer, and the Central Provinces code leaves it to the Commissioner, to decide. The policy of the Madras code is to begin with relief at kitchens, gratuitous relief being only resorted to later on with the special sanction of Government. Some of the codes leave it to the discretion of the Collector to decide whether the dole should be given in the shape of money or of grain; in other cases preference is given to a grain dole. When given in money the dole is everywhere the amount of money sufficient to buy the minimum ration. When given in grain it is generally the minimum ration; but the Madras code prescribes the special poor-house ration allowed by that code, while the Bengal code fixes a weekly grant of 7 lbs. unground grain for adults and half that amount for children.

Relief works.

81. The backbone of famine relief administration according to all the codes is the system of "famine relief works." The principle maintained is that all who apply and are capable of working are admitted to relief works, and are there given tasks and wages

graduated according to their respective strength and physical requirements. If the able-bodied wilfully fail to perform their tasks their wages are proportionally cut down by fines, but not below the minimum wage prescribed for the weakly class of workers. The wages are not to be more than sufficient for the proper subsistence of the actual workers, and any young children or adult dependants incapable of work who may accompany them are to be granted separate doles or gratuitous subsistence allowances. It is only those who are incapable of doing any work at all on the relief works that are admitted to gratuitous relief. The system of management of relief works contemplated in all the codes is practically the same, and is known as the task-work system. The detailed rules for carrying out this system are contained in chapters VI and VII of the codes. We have found it necessary to subject these rules to close examination in subsequent chapters of our report. In matters of detail there are divergencies which we there notice, and it would be superfluous to mention them here.

Wages or rations.

82. It may be mentioned however that the wages and doles fixed for different classes are based upon certain rations defined in the codes. The rations prescribed are the full ration "sufficient to maintain able-bodied labourers in health and strength," the minimum ration for weakly labourers and adult dependants, the penal ration for labourers sent to a poor-house for refusing to work, and proportional rations for children according to age and requirements. All the codes provide that the money wage may be deduced from the rations in either of two methods. Either the amount of money which at the current rates is sufficient to purchase the component items of the ration may be given, or the money value of the 'grain-equivalent' of the ration. By 'grain-equivalent' is meant the amount of grain of which the value is in ordinary times equivalent to the total value of the various items of the ration, and this is computed in all the codes to be $1\frac{3}{4}$ times the weight of the grain item itself. These rations and the wage scale have been prescribed by the Government of India, and are generally adopted in all the codes. But some divergencies occur, as for example, in the case of children who are remunerated "according to age and requirements," and in the adjustment of the wage as current prices fluctuate. The Bengal code contains a provision for fixing wages in pice and not in pies (a coin not ordinarily in use) and for ignoring fluctuations in the market which involve a difference of less than one pice, while the Madras code contemplates a close adherence to market rates as they fluctuate and payment to the nearest pie. In the Madras code the wage of the B class female when expressed in chattaks is slightly higher than in other codes, and special rations are prescribed for poor-houses, for persons in receipt of gratuitous relief, and for young children. The rations prescribed in the Burma code differ from those in the other codes, and certain margins are allowed in the cash wages of labourers of classes A and B.

Poor-houses.

83. Poor-houses are institutions for the reception and relief of persons unfit to work who either have no homes or cannot conveniently be sent to their homes, and of persons in need of relief who are fit to work and wilfully refuse to labour. A condition attaching to this form of relief is compulsory residence within the poor-house, in the case of persons of the first class until they are fit to work or to be sent home and in the case of persons of the second class until they consent to work. All

the codes except that of Burma provide for the establishment of poor-houses. Some of them define the classes of persons eligible for this form of relief in the words used above, while others separately mention professional beggars who find the sources of private charity dried up and other applicants for relief of whom it is doubted if they are really in want and to whose case willingness to reside in a poor-house is applied as a test. The intention of the separate mention of these people apparently is that if they refuse to go to the relief works, the inspecting officer if in doubt whether they are properly eligible for village gratuious relief may refer them to the poor-house. The Bengal and Madras codes rule that poor-houses are only required when famine is severe and the other remedies applied are insufficient and require to be supplemented, while the other codes are not clear as to the stage of distress at which these institutions should be started.

Kitchens.

84. The provisions of the codes relating to kitchens are not uniform as different codes contemplate the use of this form of relief to very different extents. The system contemplated by the Bengal code is to relieve the non-working children and adult dependants of relief workers by means of allowances to the working members of the family; but at some undefined period of the famine central kitchens are to be opened for feeding the children of a group of villages. Later on, when famine becomes very severe, the non-working children and adult dependants of relief workers, who otherwise are relieved by means of cash allowances to the workers, are to be admitted to these central kitchens. The system of the Madras code is altogether different. It is there laid down that in the early stages of distress, unless otherwise directed by Government, relief for all who cannot earn wages on relief works and are otherwise unable to support themselves shall be restricted to the grant of cooked food at central kitchens established for the purpose, and it is also directed that kitchens are to be provided in connection with large works for the feeding of non-working children and of any persons temporarily disqualified for work. The system of the Bombay code is again different as it seems to contemplate that kitchens shall only be opened in connection with works, the non-working children and dependants being fed there. The systems prescribed by the codes of the North-Western Provinces and the Central Provinces are somewhat similar to that of the Bengal code. The Punjab code provides that kitchens should be established first at relief works, and only afterwards if considered necessary at selected centres for relieving the children of groups of villages.

Other measures of relief.

85. All the codes except that of Burma devote a chapter to what is called "other measures of relief". Such measures are: (*a*) gratuitous or semi-gratuitous relief to *parda nashin* women, (*b*) relief to respectable men, (*c*) relief to artizans, (*d*) relief to weavers and (*e*) temporary orphanages. Some of the codes also deal in this chapter with such subjects as the suspension and remission of land revenue, loans to agriculturists and land improvement loans, and the utilization of private subscriptions which in other codes are dealt with elsewhere. In the Madras code special prominence is given to the relief of weavers in their own craft. The Bombay code provided that weavers should be relieved in their own craft, but at the commencement of the late famine it was revised at the instance of the Bombay Government so as to admit of such relief being given only to those weavers who might be deemed incapable of earning a living on the ordinary relief works.

86. For the protection of cattle when the pasture is about to fail, the codes provide special arrangements for sending them to the nearest available Government reserve that can be opened and for the supply of fodder and water on the route. Provision is also made in all the codes for the withdrawal of restrictions tending to exclude persons in distress from the full benefits of the natural products of Government forest or waste land containing an important supply of edible forest produce.

Protection of cattle.

87. The duties assigned to the police in times of scarcity or famine are much the same in all provinces. Officers in charge of police stations are required to submit periodical reports on such matters as increase in crime due to the rise in prices or scarcity, the wandering of needy or starving persons, deaths due to want of food, cases of starvation or severe want, and the like. Every such officer is furnished with an advance of money to meet urgent cases of starving wanderers, and they are bound to see that corpses found by the roadside are properly disposed of. It is the duty of the District Superintendent to organize a system of patrol to direct starving wanderers to where they can get relief, and to take extra precautions for the protection of markets, grain-stores and lines of communication. The Punjab code contains a provision that the District Superintendent should obtain from the Civil Surgeon for the guidance of his subordinates a simple statement of the kind and quantity of food that should be given to starving wanderers. The Burma code omits the provision for furnishing station officers with an advance to meet urgent cases of starving wanderers.

Duties of the police.

88. The Medical Officers who have special duties assigned to them during times of scarcity, are first the Chief Superintending Medical Officer of the province, secondly Medical Officers in civil charge of districts and thirdly medical officers attached to poor-houses or large relief works. The Chief Superintending Officer is generally responsible for the medical arrangements connected with famine relief, and it is his duty to keep himself acquainted with the state of public health in the affected districts, to issue such instructions as may be necessary regarding the treatment of famine patients and their diet, to personally inspect and supervise the medical arrangements and to take steps for the supply of the requisite staff. Medical Officers in civil charge of districts are required to keep the District Officer informed as to the state of the public health, and to bring to his notice cases of death or illness due to starvation and deficient sanitary arrangements. They have also if so required to inspect the labourers on relief works and to visit the hospitals at relief works or poor-houses, and generally to aid the civil authorities in making the necessary arrangements for sanitation and for the proper care of the sick. Medical Officers on works have charge of the hospitals that are attached, and are required to inspect the labourers, the water-supply and the conservancy arrangements. All the codes contain provisions of this nature though in some the detailed rules are more elaborate than in others. The most important point of difference is in respect of the duties of the Chief Superintending Medical Officer. In some provinces as in Bengal, the North-Western Provinces and the Central Provinces, the functions of the Chief Superintending Medical Officer are performed by the Inspector General of Civil Hospitals, the Sanitary Commissioner finding no place in the code. In Burma the Sanitary Commissioner performs the duties of the Chief Superintending Medical Officer. In the Punjab, Madras and Bombay both

Duties of Medical Officers.

the Chief Superintending Medical Officer and the Sanitary Commissioner have respective duties assigned to them, but the degree of responsibility attaching and the nature of the duties assigned to each vary considerably in the three provinces.

89. The final chapter of the codes deals with the question of accounts. This is a matter which we have not felt it incumbent on us to examine in detail. But our general views on the subject will be found in paragraph 467 of our report.

Accounts.

CHAPTER IV.

THE MATTERS IN WHICH THE PRESCRIPTIONS OF THE PROVINCIAL FAMINE CODES HAVE BEEN DEPARTED FROM.

Introductory remarks.

90. The following seems to us the best and simplest method of explaining the deviations from the prescriptions of the local famine codes which occurred in the recent famine campaign. In the first part of this chapter we shall briefly narrate and explain the successive measures of relief adopted in each province, pointing out which of such measures were in accordance with the local code, and which were deviations or modifications of its prescriptions. In this part, however, matters relating to the organization of relief works will be noticed briefly and in general terms, without going into questions of technical detail, which, though important in themselves, are so complicated as to require separate treatment. In the second part we shall treat in detail the special question of relief works with the object of describing the system outlined in the codes, and of explaining the modifications and additions of system which the several local Governments deemed is desirable to make in this the most important form of relief. We may here explain that we have not thought it necessary to include in our report a full narrative of the recent famine. To have done so would have greatly lengthened our report. Each province has published its own narrative, and a general narrative was published by the Government of India at the end of 1897 immediately after relief operations came generally to a close.

Precedence given to the North-Western Provinces and Oudh.

91. The narrative naturally begins with the famine operations conducted in the North-Western Provinces and Oudh. Not only were the areas and population affected greater and relief operations more extensive in this than in any other province, but nowhere were departures from the code system so numerous and so important. It will be seen in the course of the narrative that many of the expedients adopted by the Government of the North-Western Provinces and Oudh were accepted by other local Governments, and their merits or weak points can thus be judged both by the results obtained in the province where they originated, and by those obtained in the provinces which subsequently borrowed them. The lead taken in the matter of famine administration by the Government of the North-Western Provinces and Oudh was in large measure due to the experience acquired by the Lieutenant-Governor, Sir Antony MacDonnell, in the Behar famine of 1873, and in the Bundelkhand relief operations in the early part of 1896. The Bundelkhand famine of 1896 was a prelude to the much greater calamity which befell this and other parts of the North-Western Provinces and Oudh in the autumn of 1896 and in 1897, and the operations of the two periods are so closely connected, that any survey of the relief measures undertaken must embrace both.

PART I.

Bundelkhand famine of 1896.

92. **The North-Western Provinces and Oudh.**—The four districts of Banda, Hamirpur, Jhansi, and Jalaun form the territory known as British Bundelkhand, and are situated in the Allahabad division of the North-Western Provinces. Distress appeared

in a severe form in these districts and in part of the adjacent district of Allahabad at the end of 1895, in consequence of a deficient south-west monsoon and failure of the winter rains of 1895-96. In the early part of January 1896 test works on the task-work system provided by the code for relief works were opened in these districts by the Collectors in their capacity of chairmen of the several district boards and at the cost of the boards, their funds being supplemented by grants-in-aid from Government. These works at first were placed entirely under the control of the Collectors acting under the supervision of the Revenue Commissioners of divisions, and the services of the several district engineers and district surveyors employed in these districts were placed at the disposal of the Collectors.

Transfer of control to the Department of Public Works.

93. The above system of control appears to be that primarily contemplated by the North-Western Provinces code of 1895, but in a very short time the local Government thought it advisable to modify it. The test works speedily developed into regular relief works, and 36,000 labourers were employed on them in the first week of March. Many of the works were "large works" as defined in section 64, and at a conference held by the Lieutenant-Governor on the 11th March it was decided that with effect from 1st April the Public Works Department should take over the control of all but very minor works. At the conference it was also decided that subsidiary to these "large works," numerous "small works," chiefly the deepening and repair of village tanks, should be started by the Collectors without professional assistance for the purpose of providing employment to the people in the neighbourhood of their homes, and of lightening the pressure on the larger works. This was permissible by the code, but a system of executing these works was devised which finds no mention in the code. It is thus described:—

New system of executing small works.

"Official supervision of these works, while in progress, will be reduced to a minimum. When it has been decided that a tank should be excavated, a rough estimate of the amount of earth to be dug should be made. The rates at which the labour will be paid should be fixed, and the supervision of work might be entrusted to the headmen of the village which will benefit by the work. Advances may, if necessary, be made to start the work, and periodical payments may be made on immediate measurements. On completion the quantity of earth excavated should be measured up, and the account closed by payment for the labour done at the rates previously fixed. The headmen should be required to keep a list of the persons employed by them and of the wages earned by each party working together. ..... There is no objection to this form of relief being combined with advances for agricultural improvements, in which case the amount to be given by Government as a free grant would be diminished."

This is the germ of the system of petty works executed under the "partly recoverable advances" rules, which was elaborated at the end of 1896 by the local Government when preparing to encounter the much greater famine of 1897. The main distinction is that whereas in 1896 a sort of contract for the execution of the work was given to the village headman, or to the zamindar or landlord, in 1897 the greater portion of the cost was also borne by the latter.

Deputation of subordinate revenue officials as officers in charge.

94. Another departure was made from the code by the deputation of subordinate revenue officials drawn from the class of assistant or *naib*-tahsildars to the Public Works Department as "officers in charge" of the professionally managed relief works. The code directs that each relief work shall have an

"officer in charge," and it was intended that he should be a civil or revenue officer, but it does not direct that the services of this functionary should be placed at the disposal of the Public Works Department. The arrangement was found to work very well, and was adopted in the 1897 famine. The professional management of the relief works devolved on sub-overseers and work-agents appointed by the Public Works Department, and controlled by the superior officers of that department through the district engineer.

Poor houses and village gratuitous relief.

95. No important deviations from the code were made in the matter of poor-houses, or of gratuitous relief in villages. In the Banda poor-house, where the inmates were as a rule in reduced condition, the minimum ration (which is also the poor-house ration of the code) was found insufficient and was considerably raised. The numbers in poor-houses were at times large. The code left it to the Collector to prepare village relief lists when the degree of distress might require it. It appears that gratuitous relief in their homes to persons incapable of work and to *parda nashin* women was confined in the famine operations of 1896 within very small limits except in Banda where it was considerable. In Jhansi and south Allahabad this form of relief was at no time thought necessary. This subject receives little notice in the local Government's review of the Bundelkhand famine operations. The general policy at the time seems to have been to restrict village relief mainly to *parda nashins* and other respectable people who could not fairly be referred to the poor-house or to the relief works as dependants.

Policy adopted in anticipation of the monsoon rains.

96. At the end of May 1896 over 250,000 persons were in receipt of relief in the four districts of Bundelkhand. The condition of the workers was reported to be generally good, and the question arose as to the policy to be adopted by the Government in anticipation of the appearance of the monsoon rains towards the end of June. The code contains no advice on this matter. The local Government considered that the proper policy to be pursued was that of "inducing the people to return to their ordinary avocations as soon as possible." With this object orders were issued in the beginning of June for the early closing of all large relief works, but with reference to the special condition of Banda, some large stone-breaking and quarrying works were there retained. With the same object the orders directed that henceforth "task-work was to be strictly exacted, and only persons capable of earning a living on task-work were to remain on the public works, debilitated persons being provided for in poor-houses." With a view "of inducing people to revert to agricultural work," no wages were to be paid to any person on relief works in excess of the minimum wage which is prescribed in section 108 for weakly persons doing a light or nominal task. It was left to the Commissioner's discretion "to continue the distribution of gratuitous relief in villages and at poor-houses when absolutely necessary." Separate figures of the numbers gratuitously relieved in the Bundelkhand famine of 1896 are not appended to the local Government's review, but as the total numbers on relief works and gratuitously relieved were only 12,729 in the middle of July, against 250,000 at the end of May, it is clear that on the closure of works no expansion of gratuitous relief occurred. The following table taken from the monthly reports submitted to the Government of India shows the numbers on relief at the end of each month from May to September in the four Bundelkhand districts and in

south Allahabad. From the end of July, the last named district disappears from the returns altogether:

Months.	Relief workers.	Gratuitous relief of all kinds including dependants on works, poor-houses, village relief, etc.	REMARKS.
May ...	183,496	37,490	The number on works was higher in the middle of the month but fell off owing to prevalence of cholera.
June ...	52,026	16,953	Cholera generally abated. Of the relief workers 39,693 and of the gratuitously relieved 10,683 were in Banda.
July ...	2,836	8,768	Relief works still open only in Banda and Hamirpur.
August ...	358	6,174	Ditto ditto.
September ...	*Nil.*	5,752	All relief works closed.

Judging from the remarks in the reports regarding the district of Banda these figures however do not show nearly all the village relief that was given in that district in August and September. In October owing to the failure of the *kharif*, relief works were opened again on a rather large scale in Banda, Hamirpur and Jalaun, and gratuitous relief was also largely extended.

Amount of the gratuitous dole not discussed.

97. The question of the amount of the gratuitous dole to be given to persons gratuitously relieved in their homes is not discussed in the papers regarding the Bundelkhand famine. Presumably the full sum was given which was required to buy the grain equivalent of the minimum ration, the grain equivalent being worked out in accordance with the "ready reckoner" or price table of the provincial code.

The wages paid on relief works.

98. With regard to wages paid on relief works, it would seem that the fourfold classification of workers laid down in the code was followed, and that their wages were determined in annas and pies in accordance with the ready reckoner above mentioned. In the notes of the conference of the 2nd May 1896 it is said:—

"The wages paid are regulated most carefully at every change of price in the staple food, and with reference to the rations prescribed by the famine code and in accordance with appendix E (2) of that code, the tendency being towards the minimum wage. The relief workers are nearly all placed in class B. The experience is that men coming on the works, more particularly in the Banda district, were in an emaciated and generally indifferent condition, but that they improve on the wages allotted to labourers of class B and give a better outturn of work for their wage. Notice was called to the number of dependants gratuitously relieved. It was stated that most of these are children-in-arms or under 7 years of age. It was observed that single men do not appear so well nourished as family men on the relief works, the latter apparently profiting by the relief given to their wives and children. The conclusion arrived at was that the existing wage of the labourer in class B and *á fortiori* in class C, affords a bare subsistence and does not admit of reduction, but that in the case of a man with wife and children there may possibly be some small margin above the mere subsistence wage for all."

At the time this opinion as to the famine wage was recorded, the Public Works Department had been in control of relief works for one month only. Very soon after, as has already been noted, the minimum or D wage of the code was made the maximum wage in order to induce people to leave the works. We have been lately informed by the local Government that experience subsequent to the conference of the 2nd May led to the conclusion that the above opinion as to the code rates of wage was a mistake, that in fact the B wage was more than a subsistence wage, and that even the D wage was ample for the majority of the workers. This conclusion was given effect to in the rules for the management of relief works issued by the local Government on the 1st December 1896. In the orders of the local Government dated the 20th October 1896, which reviewed the Bundelkhand operations and which laid down instructions for "future guidance" as the result of experience, the question of the adequacy or non-adequacy of the wage is not touched on. The only instruction as regards wages is that "no change in wages should be made if prices vary by less than 10 per cent., and ordinarily no change should be made unless with the previous sanction of the Commissioner," and this was based on the Lieutenant-Governor's view that "constant and minute adjustment of wage to everchanging prices caused unnecessary labour and complication, and should be avoided." Prices, it may be noticed, were much lower in the Bundelkhand famine than in that of 1896-97. The cheapest grain averaged about 15 seers. On that basis the B wage, according to the ready reckoner, was one anna three pies for a man and one anna two pies for a woman. The D wage was 11 pies for the man and 10 pies for the woman. The "working child's" wage varied from a minimum of 8 pies to a maximum of one anna. Allowing for the fact stated in the resolution that, including non-working dependants, there were on the average 5 women and children to one man on the works, this would give an average wage or dole of 1 anna 1 pie. As it is stated in the Bundelkhand resolution that the average wage for man, woman and child, dependants included, paid by the Public Works Department in the famine was only 9½ pies, it is probable that reductions were freely made in accordance with the provisions of the local code, by fines for uncompleted tasks, and that the majority of the workers, though as the monthly returns show classed as A and B, in practice only received the code minimum wage.

The famine operations of 1896-97.

99. The famine operations of the 1896-97 famine are taken by the local Government to have commenced from the 1st October 1896, but practically in the Bundelkhand districts and in the Hardoi district in Oudh the operations of the earlier period of the year continued more or less into September, and merged into those of the later period. At the end of August 1896, as the table above shows, about 6,000 persons were still in receipt of relief in Bundelkhand, and poor-houses remained continuously open in all the four districts. On the 21st September 1896 general instructions were issued to Commissioners of divisions in the North-Western Provinces and Oudh authorising them to sanction the opening of test works in any district in which symptoms of distress appeared, and further instructing them to complete the programme of relief works and to map out and organize relief circles and to fix sites for poor-houses. On the 30th September further instructions were issued for the preparation of programmes of village relief works, and for the formation of local relief committees in the large towns. During October the Lieutenant-Governor visited each division, and from the memoranda of his conferences with the district officers may be gathered the measures taken

at this period to deal with the situation. Briefly, in all districts in which distress had appeared, or was apprehended, test works had been started and poor-houses opened, and lists of persons requiring gratuitous relief were in a more or less forward state. In the Bundelkhand districts and in Hardoi and Allahabad regular relief works were in progress and gratuitous village relief had commenced. At the end of October in the united provinces, 62,899 persons were in receipt of relief, of whom 13,532 were in poor-houses, 7,340 on gratuitous village relief, and the remainder on works. In these preparations no important departure from the provincial code is observable, though in several directions its principles had been expanded into detailed instructions. The institution of poor-houses in districts in which the works were only in the "test" stage is, perhaps, a development of the code, though one fully justified by the circumstances of the larger towns. For the able-bodied of the rural population there was considerable employment in the fields in most districts, owing to very large advances which had been made for seed and temporary earthen wells. Test works in the less distressed districts failed consequently to draw. But in the towns and among the beggar class there was distress and wandering. This was met by poor-houses. Another development of the code was the formation of relief committees to deal with the peculiar kind of distress met with in the towns among the artizan classes and the respectable poor. These committees were usually organized by the municipal or town authorities, and the local relief funds collected by them were supplemented by monthly grants-in-aid from Government. The Government grant to the Lucknow committee was Rs. 15,000 a month, to the Allahabad and Agra committees Rs. 5,000 a month each and to the Cawnpore committee Rs. 3,000 a month. In the organization of relief works an important decision was announced as to the general character of the works to be undertaken. The provincial code distinguishes between "large" works capable of giving employment to not less than 1,000 labourers for a period of at least three months, and "small" works, and lays down the principle that "small" works should be utilised in the early days of scarcity, while "large" works should be the backbone of the relief system in the later stage of a famine. The underlying idea of this prescription appears to be that while distress has not reached the stage of actual famine and its extent and duration are as yet uncertain, it is preferable to rely upon ordinary or small works and to avoid starting large works which may prove not to be required for relief purposes. In the famine of 1897 there was, however, no doubt as to the far-reaching character and depth of the distress, and the local Government decided to reverse the policy of the code and to begin with large works managed by the Department of Public Works. It reported its intention to do this in its letter to the Government of India of 23rd November 1896, and gave what appear to be very good reasons, so far at least as a similar emergency in the North-Western Provinces is concerned. Small works were to be kept in reserve until the approach of the hot weather, when they were to be utilised to ease off the pressure on the large works and to draw back the people to their villages preparatory to the setting in of the rains and the resumption of agriculture.

Rules for the management of large relief works.

100. For the management of large relief works an important set of rules was promulgated by the Government Resolution No. 18-P.W., dated the 5th December 1896, which were based on the experience of relief works in the Bundelkhand famine, and diverged in many respects from the provincial famine code. The rules recognised only two classes of workers—the carriers and the diggers—in place of the fourfold

classification of the code, and gave the latter the B wage and to the former, who formed the great majority of the workers, the D or minimum code wage, which in the code is reserved for weakly persons, fit only for very light or nominal employment. It was said in justification of this change that a full day's work on the relief works was done only by the minority of the workers employed as "diggers," and that the majority, whether able-bodied or not, consisted chiefly of women and children, and were lightly worked as "carriers." It was also stated that as the people came in family groups to the works, the joint earnings of the family ought to be so restricted as to be sufficient only for its subsistence, and that for this purpose the minimum code wage for the majority was enough. To non-working dependants of the relief workers the rules sanctioned allowances less than the minimum code wage to which by the code they were entitled. In expressing the wages of each class in grain equivalents the rules followed the code. The following table shows the difference between the grain equivalent wage and dependants' dole by the code and by the Resolution of 5th December 1896:

BY THE CODE OF 1895.			BY THE RESOLUTION OF 5TH DECEMBER 1896.		
	Males.	Females.		Males.	Females.
	Chattaks.	Chattaks.			
Class A. Professional labourers...	21	19	Mates of gangs and persons in responsible posts.	6 pies more than diggers.	...
				Chattaks	Chattaks.
Class B Labourers not professional	19	17	Diggers	19	16
Class C. Able-bodied not labourers	16	15	... ...	...	...
Class D. Weakly, fit for light employment.	14	13	Carrier class	14	13
Adult dependants	14	13	Adult dependants	12	10
					Chattaks.
Children under 14 years of age from $\frac{3}{4}$ to $\frac{1}{4}$ of the adult male wage (*i.e.*, from about 14 to 5 chattaks) according to age and requirements.			Working children above 12 and under 16 years		10
			,, ,, over 7 ,, ,, 12 ,,		6
			Not in arms and under 7 years		3
			Infants in arms an extra pice to the mother.		

In the important matter of periodical conversion of grain wages into cash wages with reference to prevailing prices, the rules were harder on the labourer than the code, by ignoring fluctuations of less than 10 per cent. in the price of grain, and by frequently giving fractions of *pice*—the quarter-anna coin in which daily payments were made—against him. Later on (in March 1897) the local Government itself fixed the conversion rate for each district and allowed no alteration in it without sanction. Between the rate thus fixed and actual prices there was frequently a considerable difference. Thus in the Allahabad district the conversion rate remained at 10 seers the rupee from March to July, but grain was as dear as $8\frac{1}{2}$ seers. The rules were again harder than the code with regard to the Sunday holiday. Up to the 16th March it was left optional to the labourer to take a holiday without pay on Sunday, or to work as on other days. In explanation of this rule it was stated that the grant of Sunday wages without work had been found demoralising in the Bundelkhand famine. In March, however, the necessity for a weekly holiday for the health of the workers and relaxation of the establishments during the severer conditions of the hot weather was recognized, and the code rule regarding a Sunday holiday and Sunday allowances reverted to. Lastly, the rules permitted fining of the workers for short tasks to be carried down to the penal ration wage, although this wage is in the code reserved for cases of contumacious idleness. The penal ration of the code is about half the full ration.

Introduction of systems of payment by results.

101. With the view of deterring all but those in absolute need of relief from coming to the works, another departure from the code was made by substituting in districts not yet recognised as severely distressed, systems of piece-work or payment by results without allowances to dependants, for the task-work system which the code enjoined for use on test works and relief works. Under the code system except in case of contumacious idleness, the workers are secured a minimum of bare subsistence wage irrespective of the amount of work they perform, and receive allowances for the support of their non-working children and other dependants. This system was considered by the local Government to be too attractive as a test and to go beyond the requirements of relief in districts in which distress was not acute. At the same time some means of testing the degree of distress existent and of affording employment were felt to be necessary, and it was evident that these objects could not be secured even in the less distressed districts by an expansion of work on the ordinary Public Works system. Under that system the officer in charge of a work deals only with professional contractors, who in their turn engage and pay the labourers; the terms of payment in either case being settled by agreement or competition. An "intermediate system," that is, midway between the code task-work system and the ordinary contract system, was therefore devised, and introduced in December. It was the ordinary Public Works Department contract system with these differences; (1) the contract rates were not current competition rates, but the normal rates of previous years raised by 25 to 50 per cent. with reference to the rise of grain prices; (2) the contractors were not to be ordinary Public Works Department contractors, but petty contractors of the small ganger or piece-worker class employing not more than 200 labourers. This system was soon found unsuitable either for test or relief works, as even the petty contractor was in a position to screw down the workmen, and also to exclude the weakly or inefficient workers, the very persons who stood most in need of relief. On the other hand efficient labourers who could hold their own with the contractor often made high wages. The system was therefore gradually modified by the elimination of the contractor and in other ways, and was so converted into what was termed the modified intermediate system. This was not a true piece-work system, but rather one of daily task-work with a low maximum and no minimum wage. On the 16th March with reference to the commencement of the *rabi* harvest and the presence of great crowds on the works, including very numerous ineffective workers and dependants, it was directed or suggested that this system should be substituted for relief works under code rules in all districts except the seven where famine was most acute, and the prospects of relief from the *rabi* harvest least. Under the modified intermediate system the worker was not allowed to earn more than a certain maximum daily wage, if he did the full task or more: but in theory that wage was held to be enough for his own support and for that of such members of his family as were unable to work. If he did less than the full task his earnings were proportionately small. The system was so far successful that it kept down the numbers on the works in a remarkable manner in the districts in which it was in force. The local Government estimated the reduction due to it from April to May as considerably greater than $\frac{2}{5}$ths, but considered that it afforded sufficient relief in a less costly and demoralising form than the task-work and minimum wage system of the code. It was, however, found necessary in May to supplement the system by kitchens for the non-working children of the workers

and by special gangs and special rates of pay for weakly adults. These two concessions were not to be general but to be given only in case of proved necessity. No provision was made for the class of adult dependants, incapable of any work. The concessions made were no doubt necessary, but they exemplify the difficulties attendant on any system of famine relief which does not distinguish between the weakly workers and the able-bodied, and leaves their incapable dependants to be supported by their exertions in a time of phenomenally high prices and great social pressure.

Policy adopted when the rains set in.

102. The policy approved by the local Government for the rainy season is expressed in its orders of the 27th May. "No inducements," it was said, "should be offered to the people to remain on relief works. On the contrary, they should be encouraged and assisted to return to their homes and to engage in the preparations for the *kharij* harvest on which everything will now depend. To this end it may be desirable to increase tasks and stiffen rates when the rains are imminent in order to weed out those who are not dependent on relief works for their absolute subsistence." In pursuance of the same policy when the rains were well established, works were concentrated, and the intermediate system was universally substituted for the code system of task-work. The rains had then set in, extensive road works and tank construction became impossible, and more employment in agriculture was open to the people, though prices remained high and some time had still to run before stocks could be replenished by the next harvest. The considerations which weighed with the local Government may be illustrated by the proceedings of a conference held on the 13th July by the Lieutenant-Governor at Hardoi, the most distressed district in Oudh. At the conference several officers expressed the opinion that "the people had grown accustomed to the system of State relief, and would prefer to remain upon relief works to returning to their villages or seeking employment in field work." It was also reported that the relief works then open would in "some cases become impossible and in all cases difficult when the rains became heavy." Accordingly it was decided that the relief officers "should endeavour to get the people returned to their homes. As soon as it appears that the rains are sufficiently established, all existing works should be converted into the intermediate system, and wages fixed on the 12-seer scale, unless prices fall and make the 14-seer scale possible.....The work should be concentrated in as few centres as possible, so as to prevent people from merely coming on the relief works because they happened to be in the neighbourhood of their homes." It may be mentioned that at this time average current prices were at $6\frac{1}{2}$ seers. The large reduction in numbers on the works in March, and again in June and July, due in part to the voluntary return of the people to their homes, but also in part to these measures, is illustrated by the following figures taken from the table at page 97 of the final famine report:—

Month.	Famine districts.		Scarcity districts.		Grand Total.
	Workers.	Dependants.	Workers	Dependants.	
February ...	1,005,303	253,954	58,821	7,872	1,325,950
March ...	607,840	144,322	4,465	...	756,627
May ...	869,243	180,790	11,636	1,023	1,062,692
June ...	339,388	71,235	6,166	986	417,775
July ...	76,509	14,778	1,224	...	92,511

103. Another important expansion of the prescriptions of the provincial code was made with regard to the execution of small works in the neighbourhood of villages. The system tried in the Bundelkhand famine of 1896 of making either the zamindar, the landlord, or the village headman the Government work-agent or contractor has already been mentioned. This system was more fully developed in rules for such works which issued in January 1897. These rules provided for the execution of petty works of village utility by village landlords under a system of advances of public funds, the landlords being under obligation to employ village labour and to pay certain rates of wages, and being granted an advance calculated on an estimate of the work to be done. On the work being duly completed, from one-fourth to one-half of the advance (as agreed on) was remitted, and the balance only was to be refunded by periodical instalments to the Government. Permission was at the same time given to Collectors to arrange for the execution of similar village works wholly at the expense of the State, in villages in which the landlords were either unwilling or unable to bear any portion of the cost. In such cases the work was either executed directly by Government, or through the zamindar as an agent or contractor. On advances made to zamindars under these rules Rs. 4,88,000 was expended and a further sum of Rs. 2,69 000 on similar works executed at the sole cost of the State. It is mentioned in the final famine report of the provinces that preference was given to the better castes and to efficient labourers by the zamindars, and that such restrictions drove the lower castes and the less efficient labourers to the larger relief works. The system in the elaborated form which it assumed is novel, and, so far as it came into operation, it seems to have been well fitted to meet the requirements of the better classes of tenants and peasant proprietors who have strong objections to resorting to public relief works. But the North-Western Provinces Government is the only Government which used to any extent the system of "partly recoverable" advances. That system offers a substantial inducement to the landlords to undertake works of general village utility, and is of course cheaper to the State than village works at its sole cost. The Madras and Bombay Governments refused to try the rules, as being unsuitable for *ryotwari* tracts. They were not tried in the Punjab, nor were they much resorted to in Bengal. The expedient, however, proved sufficiently valuable in the North-Western Provinces to justify the departure made from the provincial code.

Rules for the execution of small village works.

104. Profiting by the experience of 1896 the North-Western Provinces Government issued on the 9th January 1897 very complete rules for the organization and administration of village relief. The letter issuing these rules remarked that during his tour the Lieutenant-Governor had observed that many persons had been received into poor-houses or relieved as dependants on works, who ought under a full working of the village relief system to be relieved at their homes so long as they are unable to work. The orders confined village relief to districts classed as "scarcity" or "famine" districts, but admitted of village relief being given exceptionally in particular villages even in districts "under observation." The provincial code, as already noted, left it to the Collector to give village relief when he considered it necessary, though it contemplated that circles would be organized and circle officers appointed as soon as scarcity was declared. These rules started by assuming that gratuitous relief would be given at once as soon as a district

Rules for the organization and administration of village gratuitous relief.

was declared distressed, and relief works were commenced. The rules also went beyond the provisions of the provincial code by directing a revision of the village lists with a view to their amplification whenever a district was transferred from the "scarcity" to the "famine" class. As to circle organization the provincial code prescribes that along with the opening of public works for the relief of the able-bodied, each distressed area should be mapped out into circles of convenient size, and circle relief officers appointed with the object of bringing under systematic review the condition of the inhabitants of each village, and of sending the able-bodied poor to the relief works and preparing lists of those incapable of labour who require to be relieved gratuitously in their homes. The village and land record organization existing in all provinces other than permanently settled Bengal adapts itself readily to this system of famine relief. The patwari or village accountant makes out the preliminary list of the incapable poor, and the kanungo or revenue officer in charge of the revenue circle in which the village lies becomes the supervising circle relief officer. These arrangements are prescribed in the provincial famine code, and the only departure found necessary in the code prescriptions under this head was to sub-divide the ordinary revenue circle of the kanungo into small relief circles, to relieve the kanungo of his regular duties, and to appoint additional kanungos as circle officers of the newly constituted circles. Over the kanungos in each tahsil or revenue sub-division is the tahsildar, a responsible officer exercising magisterial and revenue powers, and usually well acquainted with all the villages in his tahsil. In famine times he becomes the supervising officer of the circle relief organization of his tahsil. In the most distressed districts it was found necessary to give him one or more assistant tahsildars, and occasionally an additional tahsildar was appointed for relief purposes. In preparing the village lists of persons entitled to gratuitous relief the only other modification of the prescriptions of the provincial code was the inclusion in the lists of such *parda nashins*, or respectable women debarred by custom from appearing in public, as were in need of relief. The code does not class them as persons incapable of labour, though it contains a separate provision for their relief in return for light work, such as cotton spinning. In practice it was found more convenient to relieve women of this class in the villages gratuitously, as their number was not great and the exaction of work would have been troublesome In the towns they were relieved by the special relief committees organized for the purpose of dealing with distress in the towns.

Amount of the gratuitous relief dole.

105. Under the provincial code the gratuitous dole to the poor on the village lists is, if given in kind, to be the minimum ration, and, if given in money, a sum sufficient to buy this ration or the D wage (see the table above in paragraph 100). The code leaves it to the discretion of the Collectors to give money or grain. It was held by the local Government that money was simpler to distribute and the better form of relief; and it was also held that the sum paid in village relief should be not that given by the code, but that fixed in the local Government's rules of the 5th December 1896 regarding the management of relief works for the dependants of relief workers. Under these rules the allowance for a man was the money value of 12 chattaks or 24 ounces of grain, for a woman and for a child between 12 and 16 years the money value of 20 ounces, for a child between 7 and 12 years 12 ounces, and for a child under 7 years 6 ounces. When the conversion rate was fixed by the local Government at 12 seers the rupee, a woman relieved at her home received three-fourths of an anna, a child between 7 and 12 years

received half an anna, and a child under 7 years of age one quarter of an anna. This would enable such a family of three to purchase 36 ounces of grain at the rate of 12 seers the rupee. But if, as sometimes happened, grain was as dear as 8 seers the rupee, while the conversion rate fixed for the district was 12 seers, the amount procurable fell to 24 ounces, which was very much less than the minimum or subsistence ration allowed by the code for a woman and two children.

Fixation of a numerical standard limit of gratuitous relief.

106. The provincial code fixes no numerical or proportional standard for determining whether admissions to the village gratuitous lists are sufficient, insufficient or excessive. This form of relief cannot be regulated by any self-acting test, and its good administration must depend on the care with which the necessities of individuals judged incapable of labour are investigated by the circle officers and their subordinates, and the extent to which the work of these officials is checked by the superior staff. In the North-Western Provinces the need of a standard by which the working of gratuitous relief in different districts could be compared and tested appears to have been felt by the local Government at an early stage of the famine operations, and in the orders of 9th January 1897 its officers were informed that "while no limit is prescribed for the exclusion of necessitous cases, it is only in a very distressed tract, and for a limited period, that the number on the village relief lists should exceed 3 per cent. of the population In tracts which are not very distressed 3 per cent. of the population may be ordinarily regarded as a maximum limit." A second test was subsequently prescribed that the number on gratuitous relief of all forms, including home relief, poor-house relief, and relief given on the works to dependants of relief labourers, should not ordinarily exceed one-third of the distressed population of the district. We shall have something to say in another part of our report as to the expediency of such standards. The particular standards adopted by the local Government are said to have been based on the Lieutenant-Governor's own observation and experience, and to have been constantly "verified by local enquiries and by the collation of the returns and estimates of the different districts in which varying degrees of distress were known to exist." They were not intended to be more than rough working guides to the district officers, and were meant quite as much to encourage an increase of relief in districts where it was below, as to enforce caution where it was above standard. But as departures on the side of excess entailed explanations, it cannot be doubted that a stringent check on gratuitous home relief was thereby created. In practice the numbers on this form of relief were maintained considerably below the 3 per cent. standard in all but the most severely distressed districts. In estimating the character of this standard, it has to be remembered that under the system of large relief works pursued in the North-Western Provinces on which whole families resided, a large number of the incapable poor who were dependants of the relief workers received gratuitous relief on the relief works and to this extent reduced the numbers requiring to be brought on the village lists and relieved at their homes. Thus, in February 1897, 2 per cent. of the population of the Bundelkhand distressed tract was gratuitously relieved at home and 3 per cent. on the works as dependants. In May, 3 per cent. of the population was gratuitously relieved at home and 4 per cent. on the works. In June and July home relief in the tract rose to a little over 4 per cent. of the population, but the numbers gratuitously relieved as dependants fell to under

1 per cent. owing to the closure of many works and the introduction of the intermediate system on others. The total gratuitous relief in the tract was thus considerably contracted in June and July, though village relief showed some expansion and exceeded the standard laid down by the local Government. It may be concluded that if a standard of 3 per cent. on the population for gratuitous home relief is a safe limit when an equal if not greater number of persons are at the same time relieved as dependants on the relief works, it becomes less so when gratuitous relief on the works is contracted or ceases.

107. **Bengal.**—Famine operations in the province of Bengal commenced in the Patna division, where test works were opened in October and were followed by relief works in November 1896. The first matter which claimed the attention of the local Government was the organization to be adopted for famine relief in the affected districts, and the plan decided on, though not in conflict with the prescriptions of the provincial famine code, involved a considerable expansion of them. The only clear direction of the provincial code on the point is that each affected district should be divided into relief circles and a relief inspector appointed to each circle to discharge prescribed duties, the chief of which are concerned with the preparation of gratuitous relief lists in villages and the superintendence of this form of relief. The size of the relief circles or the classes of officials from which the circle inspectors should be drawn are not indicated in the code. The machinery which the revenue system of a temporarily-settled province provides for famine relief work, has in Bengal to be extemporised for the purpose. In a temporarily-settled province the patwari or village accountant's circle is the inferior unit for famine relief, the kanungo's circle becomes the relief inspector's circle and the kanungo the relief inspector, while over the three or four kanungos belonging to the tahsil is the tahsildar. The scheme drawn up by a conference of district officers of the Patna division followed the same principle, though the details differed. The affected area in each district was mapped out into relief charges, each charge comprising ordinarily about 300 square miles, and each charge was again divided into about 10 relief circles. The charge thus constituted was about two-thirds the area of an average tahsil in Upper India, and about twice the area of an average kanungo circle; while the relief circle contained an area equal to that of about eight patwari circles. As the charges were for the most part officered by Europeans, who if non-officials received a salary of Rs. 200 to Rs. 300 a month with horse allowance, and as the circle officers received Rs. 75 a month in salary and allowances, the organization thus created was more expensive and powerful than what was considered to be necessary in seriously affected tracts in other provinces. In the Behar or Patna division there were 60 charge superintendents and assistant superintendents, and 339 circle officers. It must however be remembered that Behar is the most densely populated division in India and that the poorest classes are said to be always on the verge of starvation: also that this establishment was largely employed for the management of works as well as for village gratuitous relief. The local Government held strongly the view that strong establishments were in the circumstances economical in the long run. They no doubt enabled gratuitous relief in the homes of the people to be brought under close supervision and made an important and thoroughly efficacious form of relief; and they also enabled work to be given to the people in the neighbourhood of their homes by

The relief organization.

means of numerous small and scattered relief works and a good task exacted from the workers. In the affected districts outside the Patna division distress was less severe and the relief organization was on a smaller scale, but the principles on which it was arranged were the same.

The nature of the relief works.

108. Following the question of the relief organization came the question of relief works. On this point it was thought necessary to depart from the prescriptions of the code. The provincial code directs that while small works should be utilised to the utmost in the early days of a scarcity, large works should be the backbone of the system of relief in the later stage of a famine. Residence in camp is made by the code compulsory for all relief workers whose homes are not within a reasonable distance from the works on which they are employed; and labourers are to be drafted from small works to large works. With the exception of a few large works opened at a late period of the famine by the Public Works Department, small works remained throughout the basis of relief in Behar, and were sufficiently numerous to allow the relief workers to return to their homes at night. Various causes co-operated to this result. Among the local officers there was a strong preference for works near the homes of the people, as the great mass of the labouring and cultivating population was said to be greatly averse to seeking work at a distance. There were very few large works ready for execution, and the construction and deepening of village tanks for drinking purposes were considered to be more useful than roads. The population was also extremely dense, and to accommodate all who required employment numerous works in any case would be required. Lastly, the staff of the Public Works Department in Bengal was unusually weak, and was not in a position till late in the famine to assume the superintendence of relief works to the extent to which this was done in the North-Western Provinces and Oudh. Relief works were started and managed by the charge superintendents with the assistance of the engineers of the district boards, and with such subordinate professional staffs of work-agents or sub-overseers as they could engage, and within each charge as many small works as were found necessary were opened. In the Darbhanga district one work was open in every 16 square miles, in Muzaffarpur one in every 22, and in Champaran one in every 32. The code contemplates that the immediate charge of relief works, whether large or small, should be, as far as possible, professional. Owing to the weakness of the engineer establishments this prescription was at first impracticable; and when it was decided that the Department of Public Works should have control of the larger works, the process of making over works to that Department by the charge superintendents, as it gradually obtained a sufficient staff, was slow. Even where the relief works under the Department of Public Works in the Patna division were most numerous, they were not more than one-third of those under the civil officers. When at a late stage of the famine a sufficient establishment had been secured by the Public Works Department, many of the works under civil officers were in an advanced stage, and it was thought advisable not to transfer the control. The system of relief works followed in Bengal thus varied from that adopted in the North-Western Provinces and Oudh, in that they were for the most part directly managed by the civil officers, and that they generally were of small size and so numerous as to bring work close to the homes of the great majority of the population. As regards the detailed management of relief works, the prescriptions of the Bengal famine code were found as imperfect as those

of the code of the North-Western Provinces. The code in recommending the grouping of the relief workers into gangs does not specify the size or composition of the gang, and its schedule of tasks proved to be unworkable. Its fourfold division of labourers into the professionals, the non-professional labourers, the able-bodied who are not labourers and the weakly, with separate rates of wage for each class, was unnecessarily complicated and the minimum wage which it secured to labourers irrespective of the amount of work done by them was found a serious obstacle to effective discipline. In January 1897 detailed rules on all these matters were framed by the local Government which followed in most respects the similar code of rules issued on the 5th December 1896 by the Government of the North-Western Provinces. The North-West system of recognising two main classes of workers—the diggers and carriers—was adopted, as was also its wage scale, under which the latter class were given the minimum wage of the code. The wage conversion table or "ready reckoner" of the North-Western Provinces was also adopted, which neglected fractions of a *pice* in converting the daily grain wage of each class into pice or quarter annas. It has been stated that in the North-Western Provinces the conversion rate for the grain wage did not closely follow the rise in prices, and that in the later months of the famine the local Government itself fixed for each district the conversion rate with reference to considerations other than the prices actually current. In Bengal the local Government left this matter to the Commissioner of the division and the district officers, and the conversion rate followed more closely the rise and fall in prices than was the case in the North-Western Provinces. But even in Bengal this rate did not always accurately represent the prices actually ruling. It was found convenient not to constantly alter the cash wages on the works on account of small fluctuations in prices: and on occasions when workers were thought to be doing well on the existing cash wage, it was not raised with prices. Thus in Champaran the conversion rate remained at $9\frac{1}{2}$ seers the rupee from the 21st January to the 27th July, though during the greater part of the time the whole population of the district was living on Burma rice at about $7\frac{1}{2}$ to 8 seers the rupee. On the 27th July the conversion rate was lowered to 11 seers the rupee, though the mean price of grain was dearer than this, because good rain had fallen and it was thought desirable to remove all possible inducements to labourers to stay on the works.

Rigid enforcement of tasks.

109. The question of grouping the workers into gangs and of fixing suitable tasks was dealt with minutely in the Bengal rules. As the excavation of tanks was the chief form of relief work, the most convenient unit for the working squad or gang was found to be a group of four diggers with a sufficient number of carriers, and suitable tasks with reference to class of soil and lead and lift were drawn up. In the absence of anything like a distance test, the enforcement of a full task and a low wage were regarded in Behar as of special importance, and to the enforcement of the prescribed tasks great attention was paid. As the ordinary wage for the majority of the workers corresponded to the minimum wage of the provincial code, it was found necessary to permit workers to be fined for short work considerably below this wage. A still lower or penal wage to which fining might be carried was devised, while on many works the workers were paid according to results, though they were not allowed to earn more than the prescribed daily wage. Subsequently, unrestricted piece-work, though prohibited by the code, was introduced in May on several large works in

Behar, and in other parts of Bengal was generally substituted for the task-work system of the code. In the districts of the Chota Nagpur division, piece-work was in force throughout the famine, as it was familiar to and preferred by the people, while owing to weak establishments the efficient enforcement of the task-work system was thought to be impracticable.

Gratuitous village relief.

110. Gratuitous village relief was early started in Behar, and was given on a larger scale than in any other province or than appears to be contemplated by the provincial code. Several causes co-operated to this result. The population is extremely dense, and the proportion of women and children, and of the old and feeble, who depend in ordinary years on private charity, is said to be exceptionally large. The circle organization extemporised for the purpose of famine relief was, as already stated, exceptionally strong, and its energies were specially directed to the relief of the destitute incapable poor in their villages. The relief works were so near the homes of the people that there was practically no residence on the works, and consequently the non-working members of a relief worker's family stayed at home, and were put on the gratuitous village list. It has been shown that in the Bundelkhand districts of the North-Western Provinces the population repaired in families to the relief works, and that the number of "dependants" gratuitously relieved on the works exceeded the number gratuitously relieved at home. In Behar, on the other hand, the people on the works consisted almost entirely of workers, who daily came from and returned to their homes. In the whole affected area of Behar 2 per cent. of the population were in receipt of gratuitous relief in March, and the ratio rose to 3½ per cent. in May, and remained at that point till the beginning of August. In particular districts the ratio was higher. In Shahabad it was 5 per cent. in April and 6 per cent. in May. In Champaran it was 4½ per cent. in May and 5 per cent. in June. A circumstance which attracts notice was the high proportion borne by the numbers relieved gratuitously in Behar to the numbers relieved by means of relief works. In April 230,000 persons in Behar were on the village gratuitous relief lists, and 268,000 were on the works: in May the numbers were, respectively, 290,000 on gratuitous relief and 315,000 on works. The same circumstance appears in the statistics of famine relief in some other parts of Bengal. In the province as a whole the number of persons in receipt of gratuitous relief in May was 414,324 and on works 376,295. In June the numbers were, respectively, 360,698 on works and 459,000 on gratuitous relief: in July 218,181 on works and 425,186 on gratuitous relief: in August 109,402 on works and 316,424 on gratuitous relief; and in September 35,426 on works and 108,148 on gratuitous relief.

Amount of the village gratuitous dole.

111. Under the provincial famine code the gratuitous dole to persons on the village lists may take either the form of money, in which case the money should be enough to buy the minimum ration of the code, or of grain, the grain allowance being 1 lb. of coarse grain a day for each adult and ½ lb. for each child. Grain doles are stated in the code to be ordinarily preferable to money, and in the late famine in Bengal gratuitous village relief as a rule was given in grain. As regards the sufficiency of the grain dole prescribed in the Bengal code, the evidence is that it was sufficient for a bare subsistence, regard being had to the facts that the recipients belonged to classes whose food is ordinarily of the most scanty kind, that they lived at home and did no work, and that they were often able to supplement the dole in various ways.

Kitchens.

112. The code prescriptions with regard to kitchens were in some respects departed from. The code contemplates the establishment of kitchens generally throughout the affected area for the purpose of relieving children, and further authorises their establishment on relief works in the case of a very severe famine for the relief of the children and dependants of the workers, instead of giving the workers money allowances for their support. In the Behar scarcity, kitchens were not deemed necessary on the relief works till the end of May, and were then confined chiefly to one district. In August kitchens were utilised throughout the division as a means of curtailing gratuitous relief. On the establishment of a kitchen, gratuitous relief by means of doles of grain was discontinued except to those who were physically incapable of going to it for relief. In the Chota Nagpur division, where conditions differ considerably from those obtaining in Behar, kitchens were extensively used in place of gratuitous grain doles, and were considered a valuable expedient, both as affording a test of distress in doubtful cases and also as greatly benefiting the health of the children.

The period prior to September 1896.

113. **The Central Provinces.**—It will be shown elsewhere in our report that distress in these provinces commenced in the Jabalpur division as far back as 1894, grew more acute in the cold weather of 1895-96, and culminated in the rains of 1896. It appears in fact to have been of the same type and severity as that which in the Bundelkhand districts of the North-Western Provinces was held to require remedial measures on a large scale in the early months of 1896, but in the Central Provinces relief works were not opened till the last month of the year, for reasons which will be examined in detail in chapter V of our report.

Relief operations from September 1896.

114. With the failure of the rains in September 1896 the local Administration realised that famine was imminent in most districts in the province, and that the danger was most pressing in the Jabalpur division. Throughout October preliminary inquiries were in progress, and in November relief measures were finally concerted, though they did not come into general operation until December. The famine code of the Central Provinces, like other codes, gives preference to small over large works in the early days of a scarcity. It leaves to the district officer to decide whether a relief work should be under civil or professional supervision, and even in the latter case makes the officer in charge of the work strictly subordinate to the civil authorities in all matters concerned with the classification and treatment of labourers, the adjustment of rates, the payment of wages, and the like. Following the example of the Government of the North-Western Provinces in the Bundelkhand famine of 1896, the local Administration decided that the management of large relief works should be taken over by the Department of Public Works as soon as sufficient establishments were obtained, and caused programmes of such works to be prepared for each district. Subsidiary to these large works, programmes of small works of local utility were to be prepared by the civil officers, and carried out by them in localities which were not sufficiently served by the large works, or where relief for weakly persons not capable of hard work was required, or where on other grounds they were judged the most suitable form of relief. Small works of the nature of land improvements which might appropriately be carried out by landholders were to be promoted by means of State loans on favourable terms. In these arrangements the procedure of the Bundelkhand

relief operations was closely followed, and when the Government of the North-Western Provinces published its rules of the 5th December 1896, regarding the management of relief works by the Public Works Department, these rules were also adopted by the Central Provinces Administration. Thus with regard to wages and tasks, the classification of labourers and their formation into gangs, the responsibility of the Public Works Department for the detailed management of the works, and the like, the provisions of the local code were discarded in favour of the system which had been devised by the Government of the North-Western Provinces.

Relief works.

115. At the end of December 115,000 persons were employed on relief works in the province, partly on large works and partly on local works. The number rose to 235,000 in January, to 262,000 in February, 384,000 in March, 462,000 in April, and to 567,000 in May. In some districts the proportion of the total population receiving relief on works was very large. In Balaghat at the end of May, 23 per cent. of the population of the distressed area were on the relief works; in Damoh 20 per cent.; in Hoshangabad 16 per cent.; in Raipur about 13 per cent. These numbers are exclusive of the numbers privately employed by the Katni-Saugor Railway contractors, or by landholders in the execution of famine loan works. As early as January the question as to whether the relief works were not attracting persons who were not in absolute need of relief, and as to the best mode of enforcing a reasonable task, came into prominence. This led eventually to the important departures from the prescriptions of the provincial code which we shall briefly describe. The information received by the local Administration was to the effect that the workers were generally in a robust condition, that they would not do an adequate day's work, and that they were content with the minimum wage and made no effort to do the most moderate task. It was also reported that non-working children were brought in excessive numbers to the works for the sake of the cash allowances given to the workers for their dependants. The first step taken on these reports was to substitute kitchens for cash doles on the larger works, and the change was considered beneficial both in keeping down the number of dependants and in improving the condition of the smaller children. The next step taken was in the direction of piece-work. In March it was decided to try a system of petty piece-work in districts not acutely distressed, and inquiries were made as to how far, and subject to what precautions, it could be introduced into the remaining districts. On the 15th May more definite instructions issued. "Owing to the paucity of good supervising agency," it was stated, "nothing like an adequate task has been obtained on works conducted on the task-work principle. . . . In practice it has occurred that numbers often flocked to the work far more rapidly than it was found possible to arrange suitable fresh employment for them or establishment to effectively supervise them. The natural result of such failure to insist on any adequate task is for the crowd to grow with almost arithmetical progression, until it is apt to generate into a mob of persons doing a minimum of work. The numbers returned on such works cannot, therefore, be always accepted as a safe measure of the amount of distress prevailing in a district." Payment by results, it was considered, would be a more effective test, and would also facilitate the contraction of the relief works on the arrival of the monsoon rains. It would then be "more than ever necessary to make sure, by an effective test, that those remaining are *bonâ fide* people for whom relief work is a necessity. This can be most readily ascertained by a strict test under the piece-work system,

the rates being lowered to a mere subsistence wage." Piece-work therefore was ordered to be substituted gradually in all districts on all relief works on which 75 per cent. or upwards of the labourers were efficient. When this was done on a relief work, the inefficient labourers were to be placed in "infirm" gangs and either drafted off to another charge maintained on the ordinary task system, or employed on a separate task-work section, and were not to be paid more than the minimum wage. For piece-workers the rates were to be kept low, but to be such as would enable an industrious worker to earn enough for the support of himself and his dependants. Further orders were issued on the 28th May regarding the closing of some of the relief works open in each district as soon as the rains set in, and the temporary refusal of admission to the works of applicants not showing signs of privation. These orders departed from the prescriptions of the code, but the local Administration held that it was very important to secure large rain-crop sowings, and to induce all who could find employment in field work to return to their homes. The effect of the setting in of the rains in the middle of June and of these orders was to reduce the relief-work population from 567,000, at which figure it stood at the end of May, to 219,000 at the end of June. Piece-work was generally reported to be very unpopular, but the majority of officers inclined to the opinion that the popular dislike to it was unreasonable, that it gave a sufficient wage to the honest worker in good health and strength, and that the "infirm" gang expedient sufficiently provided for the inefficient labourers. In all districts, however, the precaution of making separate provision for infirm people was not at first taken, and in some districts the entrusting of the works to contractors added to their unpopularity. It is held by the local Administration in the final report that as these defects were removed and as the system became familiar to the people, it satisfactorily fulfilled in most districts the object in view, which was to afford sufficient relief to the needy and unemployed on the condition of an effective labour test. The departure from the code involved by this extensive introduction of piece-work is therefore considered to have been justified. In Saugor, Mandla, and Seoni, however, piece-work after trial was abandoned as unsuited to the people, most of whom in the last two districts belong to the aboriginal tribes. In Damoh and Chhindwara it was never tried owing to the opposition of the Deputy Commissioner; and in Betul the Deputy Commissioner found it necessary to give the workers the option between task-work and piece-work. In Bilaspur and Raipur it was introduced on a certain number of works under special rules, whereby special provision was made for infirm workers and for feeding children and others physically unable to work.

In August the rules of May were revised and another system of payment by results prescribed, which was thought to be better suited to the last stage of the famine. Employment in the fields for the able-bodied was expected to increase as the harvests ripened, and it was considered necessary to refuse all inducement to this class to remain on the works. Under the revised system the able-bodied workers were selected and formed into separate gangs and separately tasked. If they did the task they received the code "minimum" or subsistence wage. If they did less than the task, the wage was reduced proportionally. The residue, or inefficient workers, also received the minimum wage, but were practically untasked. This system, it need scarcely be said, widely departed from the prescriptions of the code. The only ground on which it could be justified was that it was a temporary expedient, preparatory to closing relief operations, and that by

a subsequent order which very soon followed, it was not to be introduced in any district or on any work except with the consent of the Commissioner.

Gratuitous village relief.

116. The expedient of "relief centres" constituted a departure from the code, and events gave it considerable importance. In November 1896 it was devised to meet the emergent circumstances of the Jabalpur division, and to act as a stepping-stone to the establishment of a systematic system of village relief or as a substitute in certain thinly populated forest tracts, where the complete system seemed difficult to organize. At these centres gratuitous relief was given to local and wandering paupers unfit for work, and light labour on a small attached work was provided for those able to work but not fit for regular task, until they were sufficiently restored to be drafted to a regular work. The relief centres differed from a poor-house in that residence within an enclosure was not required: and from a kitchen in that grain or money and not cooked food was distributed. The drawback was that they tended to become centres of confusion and disorder, where relief was disbursed without discrimination or inquiry into individual cases, and very little work secured from those fit for employment. But as a temporary expedient, pending the preparation of the village gratuitous lists and the organization of village relief on a methodical system which had been too long deferred, they were perhaps the best thing that could be done at the moment to stem the fast rising tide of distress, to intercept and relieve immigrants from native states who were flocking into British territory, and to bring relief at once to persons who were temporarily incapacitated by privation from regular work. Numerous relief centres were accordingly opened in November in the division before large relief works were started or the village relief system organised, and it was contemplated that when once these two code measures of relief had been effectively established, the necessity for them would largely disappear. In the Marwara sub-division of the Jabalpur district, where distress was very severe, the relief centres in January had a population of 28,000. In the Mandla district under similar though even more difficult conditions, the numbers rose to 5,000. In February village relief was effectively organized in the Jabalpur district and employment brought nearer to the homes of the people by opening more relief works, and the relief centres were gradually broken up. As regards their utility the Commissioner of the division wrote in April 1897: "Except to provide for weakly and emaciated wanderers or to meet the needs of wild and inaccessible tracts in large parts of Mandla, the relief provided at these centres has not proved economical or effective as regards the exaction of a sufficient amount of work in return for wages paid. They are therefore being steadily reduced, some being converted into poor-houses to provide for wanderers during the monsoon months, and others being closed altogether." Outside the Jabalpur division the expedient of relief centres as a stepping-stone to organized village relief in the first stage of the famine was less resorted to. Distress elsewhere was slower in coming to a head, and this gave time for the organization of village relief for the infirm and for providing sufficient work for those fit for work. Relief centres were, however, employed in a somewhat modified form in the wilder and more sparsely inhabited parts of the provinces throughout the famine as a more convenient way of providing gratuitous or semi-gratuitous relief for the scattered races of the hills and forests which could not be readily reached by the ordinary system of village inspection and relief.

Organization of village relief.

117. In the organization of village relief the prescriptions of the provincial famine code were generally followed. The lists were prepared by the village mukuddams or headmen with the assistance of the patwaris, and checked by the revenue inspectors and superior relief officers. The code makes the Commissioner of the division responsible for directing the preparation of the lists when in his opinion the scarcity is, or is likely to be, sufficiently great to require this precaution. If the magnitude of the distress could have been foreseen, this discretion would probably have been exercised earlier than it was. Nor was it recognised at once that for the proper management of this form of relief the revenue inspectors and the superior staff in each district would require to be largely increased. In no district were the lists ready before January 1897. At the end of January less than 7,000 persons in the provinces were in receipt of gratuitous relief at their homes, of whom 4,428 were in the Saugor district and 1,842 in the Jabalpur district. At the end of February the provincial total had risen to 26,000, but of this the Jabalpur district accounted for 13,700, the Saugor district for 6,000 and the Damoh district for 4,500. In other districts arrangements were more backward, and in them systematic village gratuitous relief did not commence till March or later. The numbers rose fast* throughout the hot weather months, and still faster during the rains when relief works had to be contracted, and a high death-rate prevailed. In the Mandla district the numbers rose from 2,418 in July to 14,649 in August and 20,596 in September. In the Bilaspur district the figures for successive months were—

March . . .	38,468
April . . .	57,307
May . . .	88,626
June . . .	108,917
July . . .	152,914
August . . .	224,539
September . . .	294,064

April, 6,984 ; May, 19,097 ; June, 35,764 ; July, 53,061 ; August, 75,318 ; September, 90,716. In the Mandla district 6 per cent. of the total population, and in Bilaspur 8 per cent. was thus relieved in September. This was a greater extension of gratuitous home relief than is contemplated by the code, but was justified partly by the difficulty of keeping a sufficient number of relief works open in all localities during the heavy monsoon rains, and partly by the extent to which the public health deteriorated at that period of the year. In the Bilaspur district where this was the case in a marked degree, the distress had been underestimated in the early months of 1897, and owing to an unfortunate misunderstanding of certain orders on the part of the local Public Works officers admission to such relief works as were open was restricted to numerical limits. Owing to insufficiency of staff the Public Works Department was also unable to promptly open the additional works asked for by the district officer, and gratuitous relief in the homes of the people was slow in being organized. In April, May and June distress increased more rapidly than the measure of relief which the local authorities were able to provide, and when the situation was finally realised after the rains had set in, the only possible expedient was in a great extension of village gratuitous relief. In Mandla the conditions were highly exceptional and such as are not contemplated by the code. The district is chiefly hill and forest, and very sparsely inhabited, the population consisting chiefly of timid aboriginal races who largely though not wholly depend during the dry months of the year on the jungles for their food. Until the rains set in these forest tribes managed to support themselves in this way, although their crops had failed, with little or no relief from the district officers. With the setting in of the rains this means of livelihood ceased, and great distress and mortality ensued. It was then found necessary to

organise village relief on a large scale, as the only means of reaching the sufferers. The special difficulties attending the organization of this form of relief in Mandla are vividly described in a paper submitted by Mr. Sharp, Principal of the Jabalpur College, who was employed for several months in the district as a relief officer.

Poor-houses.

118. The administration of poor-houses became of special importance in the Central Provinces, both on account of the great number of inmates and of the deplorable state of health in which they ordinarily reached the poor-house. In June 1897 the poor-house population in the provinces exceeded 31,000. With so much wandering from district to district within the provinces and with such a flood of immigrants from native states, many of the poor-houses assumed larger dimensions and required more complete organization and larger paid establishments than the code contemplates. Many suggestions on these points have been made by medical officers to the Commission. The dietary prescribed by the code for poor-houses was generally found insufficient, especially as regards vegetables, and was increased by the medical superintendents at their discretion. The poor-houses in fact in the Central Provinces were more of the nature of hospitals than resting-places for beggars and wanderers, such as the code contemplates, and the dietary had to be arranged accordingly. The code is not clear as to the necessity for systematically drafting to their villages, to be there relieved, all inmates whose settled residence is known and who are in a fit state to travel. The local Administration found it necessary to issue instructions on this point. Where they were insufficiently attended to, the poor-house population tended to grow, as in Bilaspur, to unmanageable dimensions.

Kitchens.

119. In the Central Provinces, as in other provinces, kitchens were found to be very useful both as an appendage to the large relief works, for the feeding of the children of the workers and of starving wanderers resorting to the works, and also as a form of village relief. As a form of village relief their utility was greatest in the last months of the famine, when the children had greatly deteriorated in condition. In the Jabalpur division in July and August they are reported to have been of the greatest service in saving infant life. They were attached to all police posts, and others were managed by school masters or village headmen. The arrangements prescribed in the appendices to the provincial code were found too elaborate for these small and temporary institutions, and simpler regulations were substituted. A shed for cooking under and another to shelter the children while waiting for the meal, a few brass or iron cooking vessels, and a stock of rice and condiments, were all that was required. The meal consisted of rice and pulse boiled together, with a little salt and clarified butter (*ghi*) or oil. From two to five ounces was the child's ration according to its age. Admission to the kitchen was by ticket given by the circle officer, but without reference to the latter the superintendent of the kitchen might grant a ticket when a child was thin and emaciated.

Commencement of operations. The Deccan.

120. **Madras.**—Relief operations in the Madras presidency commenced in November 1896, by the opening of test works in the four Deccan districts of Bellary, Kurnool, Anantapur, and Cuddapah. These districts have a total area of 27,000 square miles and a population of 3,700,000. The area of the tracts in which the crop failure was so great as to necessitate relief measures was returned

at 8,495 square miles with a population of 1,200,000 in November, and at 14,743 square miles with a population of 2,000,000 in June 1897, when relief was approaching the maximum. The test works appear to have been conducted by the district board engineer in each district and to have consisted of road repairs on the ordinary system at rates of wages approximating to the wages admissible on relief works under the famine code. As these works showed that a demand for employment existed in any locality, the Collector obtained the sanction of the Government to open a regular relief work. Several large relief works, with kitchens attached for feeding non-working dependants, were thus in operation at the end of November 1896 in the Bellary and Kurnool districts. In the two other districts the attendance on the test works was smaller, and the regular code system was introduced at a somewhat later date.

Relief works placed under the Public Works Department: and instructions issued by the local Government.

121. In orders passed in the end of November the Madras Government recorded that all relief works were to be placed "under the control of the Public Works Department as contemplated by the famine code." But the department, as a department, was not really put in charge, nor does the code, read as a whole, appear to intend that it should be. In the orders issued the Public Works Department was directed to depute an Executive Engineer to each district, and to arrange for a staff of overseers sufficient to allow one for the direct charge of each relief work that might be opened. Tasks were to be strictly enforced by the system laid down in an appendix to the code. "Weakness," the Madras Government said in its directions on the subject, "is the only cause directly attributable to the workers, which is a valid excuse for not turning out the required task. When, however, it is shown that a gang cannot, owing to weakness, turn out the allotted task, the case should be met by reduction of the task and of the class of the gang. Short work should not be excused under any circumstances. The minimum wage should only be allowed in those cases where the default is not directly or indirectly due to the workers themselves." Whether these instructions were a departure from the prescriptions of the famine code was open to discussion. It was urged by the Board of Revenue, one of whose members occupied in accordance with the provincial code the position of Famine Commissioner, that they did conflict with the direction of the code that "as a general rule the effect of fines must not be to reduce the wage below the minimum wage." The Board represented that from causes other than weakness the relief workers were frequently unable to complete the prescribed tasks, and that the reduced wages which they received under a system of unrestricted fining were insufficient to maintain them in health. The Government's view, on the other hand, was that its instructions did not contemplate wholesale unrestricted fining, but only the enforcement of such discipline as was necessary to prevent the relief works from becoming "demoralising, wasteful and chaotic." It held that the regulations of the code, regarding the classification of relief workers and the adaption of the task to their capacity, enabled the Public Works officer in charge of a work, in communication with the Collector, to place each gang in its proper class, and to give it a task which, all things considered, was well within its power to execute. That being so, a gang had only itself to blame if it failed to perform the task and found its wages reduced; and reduction of wages in such circumstances, even below the minimum wage, was in accordance with the spirit of the code. To provide for exceptional cases the Madras

Government was willing to give the Collector authority to direct that on any particular relief work wages should not be reduced for short work below the minimum wage, but any exercise of this power was to be reported to the Government. The effect of these orders was to bring a large proportion of the gangs on relief works into the two lowest classes, in which, if the task was low, the wage for its performance was also low. The standard tasks of the code for the two highest classes A and B were, no doubt, often in excess of the capacity of the relief-workers consisting largely, as they did, of women and children. It must be remembered also that A and B gangs must generally have included for family reasons a number of weakly people. For under the gang system enforced workers of different classes were not allowed in the same gang, as was done in other provinces, and the very limited amount of gratuitous relief given, as will be noticed below, must have swelled the proportion of weakly people among the workers by adding many who in other provinces would have been in receipt of doles as dependants on the works or as incapables in the villages. Another circumstance which considerably told on the working capacity of the people was the long distances which many of the workers travelled daily to and from their homes. They rarely resided on the works, nor was hutting accommodation provided. Endeavour was made to provide work within fairly easy walking distance of each village, but in a thinly populated country, and with limited establishments, this was only partially possible. If tasks were to be enforced at all, they had thus to be very moderate, and under such conditions the strict enforcement of the most moderate task was difficult. Revised task-tables began to be prepared in each district, in which the principle of making allowances for distance and physical weakness found some recognition. But the preparation of these tables took time, and the simplest practicable expedient was to put the gangs into the lowest classes and give them the smallest code task and the lowest code wage. Meanwhile the sufficiency of the minimum wage for working people began to be questioned by the Sanitary Commissioner and the Famine Commissioner, and evidence was adduced to show that the condition of relief workers in receipt of it deteriorated. Matters stood thus at the end of March, when the Madras Government, after a visit paid by His Excellency the Governor to some of the works, announced concessions which materially changed the condition of the relief workers. It was decided that all relief workers, save the very weak, should be placed in one or other of the two highest classes, and thus given the A (the maximum) or the B wage on performance of such task as might be required. The very weak alone were to receive the C wage, and the D (or minimum) wage was abolished as insufficient for any class of workers. The task for each gang was also to be closely adapted to its working capacity. It was to be further reduced if the workers were thought to be physically weak, though as regards wages they were still to remain in the A or B class, and it was to be still further reduced in proportion to the distance of the workers' homes from the relief work. Fining was restricted to clear cases of malingering or insubordination, and even then was not to reduce the wage below the code minimum wage without the special permission of the civil officer in charge of the sub-division, or for a longer period than seven continuous days.

Liberality of the concessions allowed to workers in March.

122. If the earlier orders of the local Government constituted a departure from the prescriptions of the famine code, in rigidly exacting tasks which are said to have been too high without the safe-guard of a minimum wage, the orders of March

equally departed from them in discarding the authorised wage scale, and in allowing reductions of the relief workers' tasks on grounds not contemplated by the code. The practical effect of the March orders was to secure the vast majority of the workers the A or B wage of the code in full, to allow the tasks to dwindle down in many instances to a small amount of work, and by virtually abolishing fining to make no provision for their due performance. There can be little doubt that the position of the relief workers, up to the end of March, was unsatisfactory, and that with the hot weather approaching the conditions under which relief was given required revision. As regards the liberality of the March concessions, they are stated to have been determined by the Madras Government after considering the reports made by the Sanitary Commissioner on his inspections of the population of the affected districts, and on "the examination made by His Excellency the Governor of the relief works in operation in the Deccan districts". It is probable that their full effect may not have been foreseen. From the Madras Government's order of the 18th June 1897, which directed that, as the monsoon prospects were favourable, the distance allowance should be altogether discontinued and full tasks enforced, it appears that discipline had suffered more than had been intended. In the Famine Commissioner's opinion the distance allowance, though liberal, had not been "excessive for the hot months," and he urged that in modification of the Government order of the 18th June, it should be continued on a reduced scale during the rainy season. The Madras Government, in directing the discontinuance by the aforesaid order, had directed that huts should be provided on the works "to meet the case of those who are really in need of relief and are willing to live on the works." The Famine Commissioner represented that the dislike of the people to leave their homes was so strong that they would rather starve in their villages. The Madras Government was so far influenced by the representations of the Famine Commissioner that, in modification of the June order which had not been communicated to Collectors, it in July allowed the distance allowance, on a reduced scale, to continue. At the same time it directed that tasks should be raised to a full day's work, and that works should be closed whenever the attendance fell below 300. It withdrew the restrictions placed by the March order upon fining for short work, and directed that weakly gangs should receive the D instead of the C wage, and that other workers should be classed as A, B and C workers instead of in A and B only. It thus went back to the prescribed classification and wage scale of the code, and restored to the officers in charge of the works the power of effectively maintaining discipline. These orders took effect in August, and partly in consequence of them and partly on account of the improvement in the season, the total numbers on relief works in the Deccan fell with the same rapidity as they had mounted up.

Criticism of the early operations.

123. The following remarks regarding the conduct of relief works are taken from the final report of the famine and are quoted *in extenso* :

"The works opened were conducted in accordance with the provisions of the code. It was found that the code tasks were not worked up to, although unlimited fining was resorted to. This showed that the code task-table was generally pitched too high; and it was accordingly modified by Executive Engineers, in consultation with Collectors, to suit local requirements.

"In three other ways the conditions of employment were originally more severe than was contemplated in the code. For the purpose of fixing suitable tasks, persons

on relief works are divided into classes, the wage varying with the class. The classes are—

A.—Able-bodied persons accustomed to labour of the kind required on ordinary works.

B.—Able-bodied persons accustomed to labour, but not to labour of the kind required on ordinary works.

C.—Able-bodied persons not accustomed to labour.

D.—Persons not able-bodied, but fit for light employment on relief works.

or more briefly—

A.—Professional labourers.

B.—Labourers, but not professional.

C.—Able-bodied, but not labourers.

D.—Weakly.

"The majority of applicants for employment on State works were petty cultivators and farm servants, accustomed to labour but not to labour of the kind required on ordinary works. These should ordinarily have been classed as B, but they were, as a fact, classed as C. This no doubt meant a lighter task, but it meant a lower wage. In the second place, wages were in the earlier stage of the famine, calculated on the price of ragi (*Eleusine coracana*), a cheaper grain, but not the grain in ordinary use. Thirdly, the code rations for each class are calculated in grain; for a time 'grain' was taken to mean unhusked grain, *i.e.*, grain in the state in which it is ordinarily to be found in the markets. It was subsequently interpreted to mean husked grain, or flour. The original interpretation resulted in a diminution of the ration by 10 per cent.

"Between excessive fining and the C wage calculated on a staple not in ordinary use, and that, too, unhusked grain, the condition of some of the workers was found by the Sanitary Commissioner to be deteriorating.

"On the 19th, 20th, 21st and 22nd of February, His Excellency the Governor visited relief works in Bellary and Anantapur, and, as a result of his inspection, and of the reports of the Sanitary Commissioner, orders were issued that all persons seeking employment on relief works should be placed as a rule in class A or class B, the very weak being placed in class C. At the same it was directed that the standard tasks should be modified to suit local conditions where this had not already been done, and power was given to local officers to reduce excessive tasks where necessary; the orders authorising fining so as to reduce the wage below the minimum were rescinded; while, in the case of works, where hutting had not been provided, a deduction from the task, proportionate to the distance of the worker's home, was sanctioned. These concessions were very necessary during the scorching heat of the summer, but, as the temperature abated, they were modified; the classification of the code was ordered to be strictly adhered to; and, generally, as the season improved, severer conditions were introduced in order to remove any inclination to linger unnecessarily on works. Also where the wage had hitherto been paid in cholum (*Sorghum vulgare*), and it was found that this was being ousted by the cheaper grain, ragi (*Eleusine coracana*), payments were made on a combined ration of the two grains or on ragi only. In place of the rigid system of the code, which was reported unsuitable to the requirements of the district, piece-work at reduced rates was advocated by the Collector of Ganjam. The proposal was contrary to the general spirit of the Code and was therefore negatived by the Famine Commissioner, but Government subsequently ordered that the system might be introduced into the localities to which it might be found suited. The task-work system had by that time been universally introduced, and, as its principles were understood, it was considered undesirable to make a general change, especially as distress was then severe and the piece-work system seemed more suited for the earlier stages of distress. The latter, therefore, had but little trial,"

We have not been able to satisfy ourselves that all the assertions in the above quotation from the final report can be accepted as generally accurate. Some of them seem to us to require amendment or modification.

Criticism of the early operations —contd.

124. The extent to which fining was resorted to in the first period of famine relief in Madras cannot be accurately ascertained. That there was fining is undoubted, but that it was excessive or unlimited to the extent suggested by the report is not clear from the other evidence before us. But the strict orders for enforcement of task originally issued, taken with the gang system which we have described, and the defects of the code task table, must have led at first to much fining. To what extent the task-table was in itself excessive is not clear, but it is evident that it was not on a good intelligible basis, and practically unsuitable. It is said to have been made up in the Revenue Board's office without professional advice, and to have been inserted in the code more as an example of form than as a practical task-table. With regard to the classification of the workers, the practice appears to have varied in different districts, but the returns for the first months of the famine show that in the province nearly three fourths of the labourers were placed in the B class. With regard to the kind of grain adopted for the calculation of wages, the practice appears to have followed the prescription of the Madras famine code which directs that the grain selected shall be "grain of medium quality and of the description in ordinary use at the time of payment." In particular taluks of the Madras Deccan ragi is the grain in ordinary use by the poorer classes in ordinary years, and if, as appears to have been the case, ragi was in such localities adopted as the standard, this was strictly in accordance with the code. In the greater part of the Deccan, however, cholum is in ordinary years the staple food of the people, though in exceptional years ragi may be imported and may on account of its cheapness be more largely consumed. This appears to have happened in 1896-97, and in such circumstances to take ragi as the wage basis would be opposed to the intention of the code. To what extent ragi was actually taken in place of cholum in localities in which ragi is not the ordinary food of the people in the early months of the famine is not clear. The practice appears to have varied. In some places the wage was calculated on cholum, in others on ragi, in others on a combination of the two. As ragi is a grain which loses much in weight in being prepared for food, its exclusive adoption as the wage basis would have an unduly lowering effect on the wage. But we do not find that such exclusive adoption was at any time general in the Deccan districts. With regard to the third alleged departure from the code, the code contemplates that when wages are calculated, as they were in Madras and elsewhere, on the grain-equivalents system, "grain in the state in which it is ordinarily to be found in the market," and not "flour," is to be taken as the basis of calculation. The original interpretation placed on the prescription of the code in Madras was, therefore, correct, and the code was departed from in the direction of greater liberality when "flour" was substituted for "grain."

Operations in the Northern Circars.

125. In the northern districts of Ganjam and Vizagapatam distress was later in showing itself than in the Deccan. But for the extremely high prices which prevailed in these districts in consequence of the drain of surplus grain stocks to other parts of India, little relief would probably have been required. The area affected was returned in July 1897, at the time of maximum pressure,

at 10,400 square miles with a population of 3,600,000, nearly evenly divided between the two districts. There was some distress also in the Godavari district but the area in which relief operations were required was only 911 square miles with a population of under 50,000. Relief works in Ganjam and Vizagapatam were opened in February and March, but did not attract workers in any numbers till April and May, and at no time did this form of relief assume the same importance as in the Deccan. In these districts two peculiarities were encountered which make relief works under the code system somewhat difficult to manage. In Ganjam the Uriyas, who in the northern tracts are the predominant race, will not allow their women to attend the relief works, though they are willing themselves to work. In Vizagapatam where the Telegus preponderate, this prejudice does not exist, but the famine wage was so much below the normal wage rate of the district for men, that few men came on the works. On the other hand, the code wages for women and children, with easy tasks and no fining, attracted these classes in considerable numbers. It was thought by the Madras Government that some system of payment by results was better suited to these districts than task-work and the code wage, and a trial was directed to be given to the method of payment by results in operation in the North-Western Provinces under the name of the "intermediate system." It was experimentally introduced in Ganjam in the last stage of the famine, and was considered by the local officers to be well suited to the conditions of the district, and to be preferred by the people to the code system. In other provinces particular castes which will not allow their women to attend relief works, have shown the same preference.

Gratuitous relief.

126. The administration of gratuitous relief in Madras presents some interesting features. The provincial code differs from other codes in that it restricts gratuitous relief in the early stage of distress to cooked food in kitchens, and prohibits the organization of village relief in the homes of the people by the appointment of circle inspectors and the preparation of lists of the poor, until such time as the Government may declare village relief to be necessary. These prescriptions are chiefly based on the experience of the relief operations in the Deccan in 1891-92, when a very considerable scarcity was successfully met by means of relief works to which the weakly were freely admitted, and by kitchens. It was recognised that in districts like Ganjam, where caste prejudices are very strong against cooked food, home relief by means of grain or money doles might be necessary. But kitchens were considered ordinarily sufficient and preferable to village relief, in the absence of exceptional circumstances and when distress was not acute. In accordance with this view, in the early stage of the late famine, gratuitous relief was confined to kitchens by order of the Madras Government, and a proposal of the Famine Commissioner to appoint circle inspectors was negatived on the 30th December 1896, and the opinion expressed that gratuitous relief would not be required in any portion of the distressed tracts for a very long time to come. "Such relief, when once started," the Madras Government informed the Famine Commissioner, "spreads rapidly and is expensive and difficult to control. It is needed only when the season continues bad for a long time in order to save life, but it should not be started till then." Accordingly, during the first months of the scarcity, the general procedure was to establish a kitchen on each relief work, at which cooked food was given to the dependants of the workers, and to other incapable grown-up persons of the neighbourhood. In

special localities, where weavers or other urban classes requiring gratuitous relief were numerous, central kitchens apart from the relief works were also opened. This form of relief was unpopular, as apart from caste considerations, it appears that with these classes social position is injured by entering, or allowing a child to enter, a kitchen. At the end of March the daily average number of persons (chiefly children) thus relieved was under 5,000 in the province. One of the arguments used against the sufficiency of the code famine wage was that the workers, owing to their objections to kitchens and to the difficulty of bringing small children and infirm persons daily to the works, had to support by it not only themselves but their non-working children and other dependants. In January the Collector of Ganjam represented that "caste Uriyas would never allow their children and infirm dependants to be fed in famine kitchens and would much sooner permit them to die." On this reference the Madras Government, following the precedent of the relief measures of 1889 and 1891-92, authorised the Collector, in cases in which he satisfied himself that caste reasons justified the refusal of cooked food, to give a grain or money dole instead. From the Deccan districts instances were reported of persons physically unable to attend kitchens who required relief, and in February the appointment of circle inspectors was sanctioned for Bellary and Kurnool. Finally the Government orders of the 30th March 1897, which granted concessions to relief workers, also revised the policy hitherto pursued with regard to gratuitous relief. General permission was given to the appointment of circle inspectors and the preparation of village relief lists. With regard to the mode of relief the rule laid down was that it should take the form of cooked food if a kitchen could be conveniently attended and legitimate caste objections did not exist: otherwise grain doles might be given, or money doles where grain doles were impracticable.

Organization of village relief.

127. It took some time to organise village relief on these new lines. The revenue inspectors in Madras, who roughly correspond to the kanungos of Upper India, are comparatively few in number, and their duties are such that they could not conveniently be relieved of them and appointed circle officers. The great areas of the Madras districts also necessitated the formation of numerous circles, and considerable difficulty in finding suitable circle officers was experienced. The progress of the new system is seen in the rise of the numbers on gratuitous relief. In April the daily average number of persons relieved in kitchens or by doles of grain or money was 13,944, in May 50,631, in June 129,607, and in July 215,495. After July, as the season improved, the numbers rapidly fell. In August the daily average was 170,940, in September 86,579, and in October 27,447. It was not found necessary to resort in any district to the prescriptions in the code relating to poor-houses. There appears to have been little or no wandering, though this was a notable feature of the great famine of 1876-77, and is still regarded as an unmistakeble sign of severe distress.

The relief of weavers.

128. The relief of weavers constituted a special feature of the Madras relief operations. Weaving is an important industry in the Madras Deccan, and in some taluks the professional weavers, after eliminating castes which have other occupations besides weaving, represent from 4 to 8 per cent. of the population. In the Ganjam district also weaving communities are numerous. To relieve all professional weavers through their trade would be an undertaking of very great

magnitude. But it was found in Madras that, from various causes, the numbers requiring relief were relatively small. The Madras famine code is fuller and more precise in its prescriptions regarding the relief of weavers through their own trade than the code of any other province. These prescriptions were in the main adhered to. The principle on which they proceed is that materials should be advanced to owners of looms, and that on the finished goods being taken over, the owner should receive a sum sufficient to give him and his assistants wages for the time spent in weaving, and to recoup him for miscellaneous expenses. This necessitates careful inquiry into processes of manufacture and minute calculations as to the number of persons employed and the time occupied in weaving each particular class of goods. It was found necessary to place special officers, of the standing of Deputy Collectors and Tahsildars, in charge of the weaving operations in each district. Their inquiries and the experience gained have resulted in revised task and wage tables and in minute regulations which should prove of great use in future famines in Madras and elsewhere. The relief given in Madras represented an average employment of 30,000 weavers for $6\frac{1}{2}$ months, at a gross outlay of $11\frac{1}{2}$ lakhs, or, approximately, 3 annas per head per day. If the stock should realise half this sum, as is anticipated, the net cost of this form of relief will not have been excessive.

Relief of hill-tribes.

129. In the Ganjam and Godavari districts and also in Kurnool, the relief of certain hill-tribes presented special difficulties which are not met by the provisions of the famine codes. In Ganjam and Godavari the hill-tribes are sufficiently civilised to engage in rude agriculture and to work for wages as wood-cutters in the forests. But it was extremely difficult to induce them to attend relief works or to accept cooked food. Gratuitous relief by means of grain and money doles, the importation and sale of grain at cheap rates in special cases and advances of seed at the beginning of the rains, were found the most effective expedients. In Kurnool a still less civilised and shyer race required relief. They accepted employment in fashioning rude wooden implements, but refused light forest work as they were averse to regular work under supervision. Kitchens were tried with some success and grain doles distributed in the most necessitous cases. The relief of jungle tribes is a subject which will be separately considered.

Indirect methods of relief.

130. The indirect methods of relief prescribed by the Madras famine code were fully and liberally applied by the Government. The state forests were thrown open for the removal of grass, and in May 1897 for grazing. The latter concession might have been made with advantage at an earlier date as was proposed by the Famine Commissioner. Land improvement loans and advances for fodder, seed and cattle were given to the amount of $18\frac{1}{2}$ lakhs. Of a total land revenue demand of 93 lakhs in the six affected districts in 1896-97 the sum of $23\frac{3}{5}$ lakhs was remitted and 10 lakhs suspended. The remissions on "wet" lands in the *ryotwari* area were made in accordance with standing rules. For dry lands they are, under the Madras system, a matter of grace, and are only given when the crop failure has been general and severe. In 1896-97 they were granted in proportion to the loss of crop on each ryot's holding according to the scale adopted in the scarcity of 1891-92. In 1891-92 the wet and dry remissions in the Bellary district amounted to $6\frac{1}{2}$ lakhs out of a demand of $16\frac{1}{2}$ lakhs. In 1896-97 Rs. 7,18,000 was remitted. From the close approximation of

the remissions in 1891-92 and 1896-97, and from a comparison of the return of rainfall, cultivation and outturn for these two years it would seem that the crop failure in each year was about the same. The fact that in June 1892 only 18,000 persons were on relief in the Bellary district and 118,000 in June 1897 may be due to increased pressure in the latter year through higher prices, to difference in methods of famine administration, or partly to one and partly to the other cause.

Results of the Government orders of 30th March 1897.

131. As the Madras Government's orders of the 30th March 1897 determined the policy of relief from that date to the complete establishment of the monsoon rains, their results are of some interest. In March 1897 the average daily number of persons in receipt of relief in the province was 81,000. It rose successively to 157,000, 312,000, 507,000, and 773,000, in the months of April, May, June, and July. In the third week of July it touched 830,000. Elsewhere we shall show that the only parallel in the late famine to the numbers on relief in July in the Kurnool and Bellary districts is found in the two Bundelkhand districts of Banda and Jalaun, in which during May and June 1897 25 per cent. of the population were on relief works and 10 per cent. on gratuitous relief. It may be safely assumed from the long protracted and intense distress which existed in Bundelkhand, and from the strict economy exercised by the Government of the North-Western Provinces in its famine administration, that the relief given in that region was not more than was imperatively called for. With regard to the Madras figures the considerations which have been urged are that the population of the Deccan is poor and its soil unproductive, that although the seasons immediately preceding the failure of the rains of 1896 had been good, the districts had not recovered from the effects of the scarcity of 1891-92, that the prices of food-grains from October 1896 were 200 per cent. above the normal, and that the weakness of the monsoon of 1897 in July caused the people to abandon hope and to flock in masses to relief. We shall return to this subject when we deal with the comparative economy of relief operations in the several provinces.

The measures adopted; first stage.

132. **Bombay.**—Relief operations were commenced in November 1896 by the opening of test works under strict supervision in the several districts, and the two divisional Commissioners were authorised to open such relief works in communication with the Superintending Engineers as might be required. In accordance with the prescriptions of the Bombay famine code, it was directed that the works thus opened should include small works, managed by the civil department, in the neighbourhood of villages for the support of persons who could not leave their homes. Most of the works however consisted of metal collection along the chief roads, under the direction of the Public Works Department. But it was perceived that this would not afford sufficient employment, and steps were at once taken to prepare larger projects on which labour could be concentrated, and to which the workers on the roads might be drafted. On such large works hutting arrangements on a large scale were to be made, and residence enforced. The district programmes of famine relief works were deficient in large works of permanent utility, but on investigation many useful works of the nature of tanks and impounding reservoirs well suited for relief purposes were discovered, though some time intervened before they could be put in hand. The small works which in accordance with the code had been opened in the villages under civil management, did no

meet with much approval from the local authorities. In Sholapur it is reported that they were found "most wasteful and demoralising." It was considered impossible to open such works in every village, and the Bombay Government ruled that one small work at most in a group of villages was sufficient for persons whom it was inexpedient to draft to large works. These small works played a comparatively insignificant part in the scheme of famine relief, and the general trend of official opinion in the presidency was in favour of the concentration of labour on large works under the direction of the Public Works Department. It was generally held that tasks and discipline were essential to prevent relief from being extended to persons not in need of it and who used the works as a convenience. It is difficult to say how far this theory of the dangerous attractiveness of the relief works was justified by facts. On the one hand the destruction of crops had been quite as great as in the great famine of 1876-77, field employment had greatly contracted, and prices had risen enormously. These were causes which made the eagerness of the labouring and agricultural population to find employment intelligible. On the other hand the generally good condition of the people who flocked to the works was noted, and it was considered suspicious that among them the able-bodied males were in a great minority, that the proportion of children was very large, that the tasks performed were low, and that reduction of the wages earned to the minimum wage through fines did not appreciably increase the industry of the workers. In November the relief work population in the presidency was 40,000. In December the daily average rose to 125,000, and in January to 261,000, of whom 76,000 were non-working children and other dependants of the workers. Representations as to the difficulty of enforcing tasks, the popularity of the works, and the increasing number of non-working dependants commenced to come in to the Government from the districts. Some officers resorted to the "distance test," and prohibited the admission of persons to works within 10 miles of their villages. This was very properly disallowed by the Bombay Government as being a departure from the code and a restriction to which exception had been expressly taken by the Famine Commission. But, in disallowing it, the Government indicated its approval of the policy of concentrating relief labour on large works and drafting scattered workers to them. "Although it is desirable," the Government said, "to provide, when practicable, work in each taluk, the workers must be required to go to a distance if this course is required for the purpose of getting more useful work done or of getting work done under more efficient conditions." From Nasik and other districts came complaints in January 1897 that the system of cash allowances to non-working children was destructive of discipline. "The minimum wage and payment of non-working children," it was reported, "enable a family to earn enough by doing next to no work." In Nasik and Ahmadnagar there was one non-working child to every two workers. Up to that time the Bombay Government had refused to authorise kitchens for the relief of non-working children to be opened on relief works, on the ground that it was more economical to adopt the alternative prescription of the code, and grant cash allowances to the workers for their dependants. But on the further information before it, the Government considered that there was very little doubt that the system of cash allowances was leading to serious abuses, and that women and children who were not in real need of relief were being attracted to the works, while the men in many cases were idling at home. It accordingly directed that kitchens should be generally established on relief works, and that, except in cases in which there was shown to be difficulty in the

distribution of cooked food to children and other non-working dependants, cash allowances were to cease. In March the question was again examined by a strong committee of famine relief officers. The conference was unanimous that there was no difficulty in getting food cooked and distributed by people of sufficiently high caste to avoid any offence to religious feeling. It was believed that kitchens might induce many of the children and some of the parents to leave the works, but that "there was no probability of any staying or being kept away, owing to their objection to cooked food, until their health was injured." The Bombay Government accordingly adhered to its decision that kitchens should take the place of cash allowances on all works on which they could be established without incommensurate expense. An exception was made in the case of small or scattered works, and in the case of very young children unable to eat the food provided at the kitchens. The effect of these orders when brought into force in April and May was to reduce considerably the proportion of non-working dependants.* But their numbers remained sufficiently high to show that there was no serious prejudice against kitchen relief on the part of the majority at least of the workers, and the local Government appears to be quite satisfied as to the expediency of its action in the matter.

	Workers	Dependants.
* February	257,613	112,475
March	287,834	116,527
April	365,237	103,145
May	266,704	69,708
June	229,937	58,704

The relief works.

133. As the season progressed the concentration of labour on large works, the enforcement of discipline, and the exaction of tasks, received increasing attention from the public works and civil officers. The first measure was deemed necessary not only on its merits, but also on account of the increasing difficulty of finding engineers and overseers. In March residence in relief camps, whenever these were provided, was made a condition of employment, and it was ordered that "in no case should either workers or children be permitted to travel daily to and from work so much as 5 or 6 miles." In the effort to enforce the task the fourfold classification of relief workers prescribed by the code though nominally maintained, was in reality abandoned. There was a constant tendency towards gravitation from the higher to the lower classes. The bulk of the workers by physique and aptitude properly belonged to the A and B classes. But as many of them would not or could not perform the tasks prescribed for these classes, they were either reduced in class, or else on account of fines received less than the class wage. Nominally about half the workers were classed as B labourers and one-fourth as C labourers, but this classification did not connote the wages actually paid. In other respects the prescriptions of the provincial code with regard to the conduct of relief works were more closely adhered to in Bombay than in other provinces. Piece-work was little used. In Dharwar, where the relief works were provided by the district board, a fixed daily wage of 2 annas for a man, 1½ annas for a woman, and 1 anna for a child was paid for a fair day's work, and no allowances for dependants or for Sundays were paid. As distress was not severe in Dharwar this scale of wages, which appears the same as that adopted in this district in the relief operations of 1891-92, was found to give sufficient relief. In the last months of the famine restricted piece-work was tried on two works in Sholapur, a limit being placed on the maximum earnings of the workers. The experiment appears to have been only moderately successful.

Concentration of relief works at the commencement of the rains.

134. The Bombay code contains no prescriptions regarding the contraction or concentration of relief works on the setting in of the rains, although the changed conditions in which work has then to be carried on, and the greater occupation open to the people in agriculture, necessitate some modifications in the system of relief. The Bombay Government took up the problem in good time, and in May 1897 requested the two divisional Commissioners to select, in communication with Superintending Engineers, the works which they proposed to keep open for the longest periods, and on which substantial shelter for the workers and the establishments would be provided. The Government's view was that a portion of the people would need relief until the autumn harvest was assured and prices had greatly fallen: but that the great majority would leave the works on the setting in of the rains. It proposed therefore to reduce the number of works open by closing those unsuitable for the rains, and by gradually closing other works as the attendance became small, and drafting the remaining workers to central works. It was, however, found impracticable to pursue this policy of concentration so far as was originally contemplated. The rains were unfavourable, prices rose instead of falling, and the workers showed great reluctance to proceed to distant works. "Early in May," wrote the Commissioner of the southern division in July, "the large relief works in the Bijapur taluka were closed on purpose to force relief-seekers to go to the Honvad-Athni road and Taushi Tank (in the adjoining district of Belgaun). This course has proved an utter failure. The only results have been that it has been found necessary to open a civil agency work at Bijapur, ... and that the numbers in the Bijapur poor-house and on village dole have increased to a very unsatisfactory extent. Many circumstances are alleged on the part of the people in explanation of their unwillingness to go far a field for work: most of these are connected with agricultural requirements and the approach of the cultivating season." He recommended the reopening of more works in Bijapur and expressed his inability to consent to certain concentration proposals made by the Superintending Engineer, which he considered could not be carried out "without either the sanction of a law rendering compulsory drafting possible, or without previously allowing a state of things to be reached from which people would be ready to flee in despair." The Bombay Government accepted the Commissioner's views, subject to the caution that more works than were necessary should not be opened, and that people should not be provided with employment too close to their homes. In other distressed districts the situation was generally less serious than in Bijapur, and more effect was given to the concentration policy. In the Poona district the further step was taken by the Collector in July of restricting admission to a relief work to persons furnished with tickets by the village officers certifying to their having no means of subsistence. The Government approved the Collector's instructions and authorised their introduction into other districts in which the numbers in need of relief were small. This ticket system contravenes the principle of self-acting tests in the form of an adequate task and low wage recommended by the Famine Commission, and there is evidence that it did not work well and was open to many abuses.

Relief in the hill taluks.

135. The peculiar conditions of the hill taluks of the Satara and Poona districts made effective relief by means of works very difficult throughout the famine, and especially so during the rainy season. The inhabitants of the scattered villages of the

Ghats showed great reluctance, during even the fair weather season, to attend the relief works opened for their special benefit in the immediate neighbourhood of the hills. They clung to their hill cultivation, and such relief as they would accept took chiefly the form of advances for repairing the embankments of their fields and for seed and subsistence. Some work in repairing and setting up boundary pillars in the forests was also provided. The heavy rainfall of the Ghats made the maintenance of relief camps in or near the hills during the monsoon almost impossible, and it became apparent that the resources of the people were exhausted and that many of them were in very great distress. In June the Bombay Government agreed with the divisional Commissioner that persons needing relief and able to work could not be compelled to go either to works or to a poor-house and that the only expedient was "to watch them until they were fit for gratuitous relief and then put them on the dole." The Collector was instructed "to take all possible precautions against the grant of gratuitous relief to those not entitled to it. Those who are engaged in agricultural operations may be granted advances for subsistence, if they have any security to offer, and others may be aided out of the charitable fund. Other able-bodied persons must be warned that they can get relief only on condition of their doing work for it, and they will not be eligible for gratuitous relief as long as they are fit for work." In September the condition of these hill taluks again came under consideration, on a suggestion that it would be more economical to extend gratuitous relief for the short remaining period of distress than to open relief works. The Bombay Government overruled the suggestion. "It is," the Government said, "a cardinal principle of the system of relief which has been adopted that labour commensurate with the labourer's powers must be demanded from people capable of work, in return for the payment made to them. It has been recognised that in the hill talukas it is not possible to carry on relief works at this season. If residents in these talukas obstinately refuse to go to relief works at a distance and thus fall into a reduced condition, it is necessary then to save them from death by starvation by the grant of gratuitous relief. But this practice must not be carried further than is absolutely necessary. Economy is not the only consideration; avoidance of demoralisation of the people is even more important. Nor is it possible to distinguish between those who are needy, and those who are not, unless a labour test is applied or unless relief is deferred until physical deterioration is manifest." The opening of relief works at suitable places and the restriction of gratuitous relief to those incapable of labour were therefore directed.

Results of the policy of concentration and strictness.

136. To the policy of concentration and strictness which has been described it was no doubt due that, notwithstanding the very unfavourable character of the rains of 1897 in parts of the Deccan, there was not the enormous increase in the numbers on relief works in July and August in the Bombay Presidency that marked those months in Madras. Even in September, when the price of jowari (the great millet) had reached 14 lbs. and 15 lbs. the rupee the daily average number of workers and dependants in the Bombay districts was below the April figures.

	Workers.	Dependants.
June	229,937	... 58,704
July	258,181	... 63,388
August	282,092	... 64,867
September	302,741	... 67,223
October	119,195	... 29,185
November	22,674	... 5,003
December	15,429	... 1,203

Gratuitous relief.

137. In the second great department of relief—the gratuitous relief in their homes of those incapable of work—the prescriptions of the code were followed, and, as has been seen in the case of the hill taluks of Poona, the Government was not

disposed even in exceptional circumstances to relax them. The Bombay code is particularly full and explicit as to the organization of relief circles and the preparation of lists of persons eligible for the grain dole, and differs from the Madras code in preferring in all stages of scarcity or famine village relief thus organized to central kitchens. As early as November 1896 the two divisional Commissioners were given authority to appoint "relief mamlatdars" and "circle inspectors" in the districts, and the system soon got into working order. It seems to have been generally applied with great caution, in accordance with the local Government's view that it was very liable to abuse, and that very constant and close supervision was necessary. In January the daily average number of persons in receipt of the dole in the presidency was 9,118, in March 23,379, and in May 33,485. In the rainy months the numbers rose considerably, as with the closing and concentration of works Collectors were enjoined to see that all persons physically unfit, or temporarily incapacitated by illness or privation for work were brought on the dole-registers. But relatively to the population of the affected areas, the proportion of persons on village relief was at no time excessive. In the hill taluks of the Poona district it probably reached 10 per cent. of the population in September 1897. But this was quite exceptional. In Sholapur and Bijapur the highest figure attained in any month was 2 per cent. In accordance with the provisions of the code the dole was ordinarily given in grain and not in cash. In Bijapur the experiment of substituting cooked food for the dole by means of kitchens established in the larger villages was partially tried, and was favourably viewed by the local officers.

June	...	...	39,201
July	...	...	52,732
August	...	...	65,542
September	...	...	88,749
October	...	...	72,571

Poor-houses.

138. For homeless wanderers and beggars, poor-houses were established in the affected districts and managed in accordance with the prescriptions of the code. The attendance was large only in the Ahmadnagar district where the average daily number exceeded 1,000 during the rains. But in each district throughout the period of distress there was a more or less numerous poor-house population, and in this respect the Bombay practice differed from that of Madras, where no poor-houses were established, and where presumably vagrants and mendicants obtained food, without the condition of residence, at one or other of the numerous kitchens open throughout the country.

The weaving classes.

139. In refusing to undertake special relief for the weaving classes at the expense of the State, the Bombay practice also differed from that of Madras. On the calculations made by the Bombay Government as to the numbers of weavers likely to require special relief, the probable outlay and the possible accumulations of stock were very serious considerations. But it is not unlikely, judging from the Madras experience, that it might have been possible to keep the operations within a much smaller compass, and at the same time to give relief to the particular classes of weavers who stood most in need of it. We shall separately discuss the question of special relief for weavers.

Suspension and remission of land revenue.

140. The prescriptions of the provincial famine code regarding the suspension and remission of land revenue in seasons of distress, are considered by the Bombay Government to have been adhered to, although out of a total demand of 173 lakhs on account of the affected districts, only Rs. 15,161 was remitted and Rs.

7,83,296 suspended. In Bijapur, a district in which the crops wholly failed, no revenue was remitted and less than $\frac{1}{5}$th of the demand was suspended. The code affirms the principle that, in collecting the revenue, pressure is not to be applied such as would cause an occupant to sell his plough-cattle or agricultural implements, or prevent or retard the resumption of agriculture; and the further principle that occupants should not be driven to borrow from money-lenders in order to pay arrears. In December 1896, in calling for information as to the extent to which revenue suspensions would be required, the Bombay Government reaffirmed the principle that, as far as possible, no one should be forced to borrow in order to pay the assessment. A few weeks later it approved instructions which are, in form at least, not entirely consistent with this principle. Notices preliminary to the forfeiture of occupancy were to issue on all defaulters, except such agriculturist occupiers as had not obtained a four-anna crop (25 per cent. of an average crop) and were also not able, in the mamlatdars' opinion, without "undue difficulty" to pay the land revenue. The question as to what should be held to be "undue difficulty" appears to have been left to the discretion of the district authorities. It is explained that these instructions were necessitated by the mischievous action of agitators inciting the people to withhold the revenue, that they were in practice worked by the district revenue officers with such moderation and clemency that in very few cases was resort had to the processes of distraint or forfeiture, and that the recovery of 94 per cent. of the demand in this way is a striking proof of the general prosperity among the agricultural classes. The land revenue assessment of the Bombay Deccan is admittedly light, and if it be the case that the demand has been paid in the late famine with little increase of private indebtedness, the fact satisfactorily illustrates the beneficial effects of a light assessment. But the evidence as to the amount of indebtedness created by the famine is not clear. Nor in this connection can the very large sum of Rs. 53,00,000 loaned out in the same period to occupiers by the Bombay Government for land improvements and seed and cattle be overlooked. There is evidence that of the 37 lakhs borrowed for well sinking and land clearance, a portion was diverted by the borrowers to other purposes, and that in the pressure of famine business a close check on their proceedings was impracticable. That the advances so liberally made kept many cultivators from the relief works and provided considerable employment is undoubted. So far as the loans were actually spent on successful land improvement, the advantages of the policy, which is in accordance with the prescriptions of the famine code, are manifest. But in some cases such has not been the result. Competent witnesses have stated that large sums have been wasted in attempts to sink wells in localities where there is no probability of finding water, and that in other cases no *bonâ fide* effort to expend the loan on the purpose for which it was given was made. These facts seem to point to the necessity for surrounding the grant of such loans with greater precautions, and for placing technical skill at the disposal of the borrowers for making trial borings for water.

Operations of the Forest Department.

141. The operations undertaken by the Forest Department with the object of supplying the distressed districts with grass, cut and compressed in the forests of more favoured parts of the presidency, constituted an important departure from the prescriptions of the local famine code, which are confined to measures for throwing open the forests for free grazing and the collection of edible products. Effect was given to these measures both in the distressed tracts and in adjoining districts.

But in the distressed areas the drought affected equally the forests, and the agriculturists refused to send their cattle to distant forests. The fodder operations of the Forest Department involved a net money loss of Rs. 72,000 to the State, as the price at which most of the grass was disposed of failed to cover the actual charges. But it is claimed that many valuable cattle have thereby been kept alive, and that the results of the experiment will be of great use in future droughts. In an extensive drought in the Deccan the only fodder that can be imported in large quantities is compressed grass. And as there are insuperable difficulties in the way of sending cattle to distant pasturages in the Ghats, the provision of fodder at a moderate cost within the distressed area is of vital importance to the agricultural population.

Policy of strict adherence to the code.

142. From the foregoing summary of the administration of the famine in the Bombay Deccan, it will be perceived that the general policy of the Bombay Government has been to construe strictly and enforce rigorously the conditions of relief prescribed by its famine code, to deviate as little as possible from its prescriptions, to make the relief works in respect of work and wage and other matters a stringent test of want, and even in exceptional circumstances like those of the Ghat tracts to restrict gratuitous relief to persons ascertained to be physically incapable of complying with the labour test. Combined with this vigilance towards the public purse, there was a promptitude of action in the several departments of relief and a clear and definite line of conduct which contributed greatly to the success claimed for its relief policy by the Government. Comparing the famine of 1876-77 with that of 1896-97, the Bombay Government has remarked that although in 1896-97 the period of intense distress was longer, the cost* per head of the population was less than in 1876-77, and claims that the administration of relief has been conducted by it with economy. "No previous failure of crops of equal magnitude," it also states, "has left so little mark on the agricultural community." As regards economy the claim is indisputable. In the period of maximum pressure the numbers on relief did not exceed 8 per cent. of the population of the affected districts. In the Madras Deccan the ratio of 29 per cent. was reached. In Bijapur and Sholapur, the two worst districts in the Bombay Deccan, 17 per cent. of the population for a time were on relief. In the Madras district of Kurnool 41·2 per cent., and in Bellary 31·3 per cent. of the population were relieved in July. In Bombay, as in Madras, it is said that no death occurred which could be attributed "to the absence of opportunity of relief." But the rise in the death-rate during the famine period was more marked in Bombay than in the Madras Deccan, and was especially high in the hill talukas, regarding which there is evidence that the people underwent very great privation.

* Rs. 1·7 against Rs. 2·3.

Commencement of operations.

143. **The Punjab.**—The Punjab famine code places upon divisional Commissioners the responsibility for directing the opening of test works to gauge the demand for employment. In Gujrat, where agricultural conditions had been previously bad, test works were opened as early as August and immediately converted into relief works. Elsewhere test works were started in October and November. "Strict instructions," it is stated, "were given by Government that the test should be made a genuine one." The wages were limited to the famine code rates, and

though the code is not clear on the point, no allowances were given to the workers for the support of non-working children and other persons dependent on them. In the opinion of the local Government the grant of such allowances would have impaired the value of the test. The test works, it is considered, thus strictly conducted, "served the purpose intended, and in no case in which they failed to draw, and the inference thus afforded as to the non-existence of famine conditions was accepted, did the subsequent course of events furnish any indication of a mistake having been made. In other words, Government has no knowledge of any loss of life due to starvation or its attendant privations occurring in any district in which relief works were not opened." In November 1896 relief works under the code or task work system were in progress in Hissar, Karnal and Gujrat. In the other six districts they were opened as the necessity arose in December and January. The first question that arose was as to the character of the works on which famine labour should be employed. The district programmes were found, in accordance with the directions of the local famine code that small works should be utilised in the first stage of a scarcity to the utmost, to consist chiefly of projects for constructing and repairing unmetalled roads, a species of work which the local Government on good grounds held to be of little or no permanent utility. It was thought expedient to recast these programmes, and to concentrate famine labour from the first, as far as possible, on works of importance and value, such as the Ghaggar Canals in Hissar, and the Jhelum Canal in Gujrat. In the hot weather months, in inversion of the policy prescribed by the code, small works were largely resorted to in the Hissar district to supplement the large works in progress and rapidly approaching completion, and to provide employment nearer the homes of the people at a time when hot weather conditions were most severe and when the approach of the rains made it desirable to keep the workers within immediate reach of their fields. These small works consisted of the excavation or deepening of village tanks, on which owing to the distance from the surface and the brackishness of well water in Hissar, the people largely depend. In July 1897 as many as 247 tanks were in progress in these districts, giving on an average one relief work for every four villages. The measures taken to secure effective management of so many scattered works will be subsequently noticed.

Conduct of the relief works.

144. The provincial code provides in general terms that small works shall be managed by the civil officers with the assistance of the district board's engineer and his subordinates, and large works by the Department of Public Works. In the management of relief works entrusted to them the public works officers are, in their capacity of "officers in charge," made by the code subject to the control of the civil authorities. The separation of duties between the civil and public works officers is however somewhat indistinct. The code follows other codes in prescribing a fourfold classification of relief workers, their formation into large work-parties or gangs of 50 or 60 persons as the unit of tasking, the securing to each worker of a minimum or subsistence wage irrespective of task accomplished except in case of proved contumacy or willful idleness, and the payment of cash allowances to him for his non-working children and other dependants. All these prescriptions of the code gave rise at one time or another to difficulties and were the subject of instructions more or less modifying them. But subject to such modifications the task-work system of the code was followed, and was not

found to work badly. Piece work was only resorted to in two places, for special reasons and towards the end of the operations. The relief works first opened were, as already said, in the Gujrat district. At first they were managed by the civil authorities with the assistance of the district board engineer and his subordinates. As soon as the necessity for larger works was perceived, the Jhelum canal irrigation project was taken in hand, and the plan adopted was to restrict the duties of the public works officers to laying out the work and to other strictly professional matters and to leave the entire organization and control of the relief workers to the civil officers. By the middle of February the relief work population had risen to the enormous number of 31,000 workers and 19,500 dependants, concentrated on three miles of work and consequently overcrowded and imperfectly controlled. During February some improvements in organization were effected by the civil officers, and a better outturn of work obtained from the workers. Cooked food in kitchens for dependants was also substituted for cash allowances, and this had an immediate effect in reducing the number of children brought to the works by the relief workers. But the system of dual management was condemned by the Government as inherently defective, and in March the direct management of the work was transferred to the Public Works Department, subject only to the general control of the civil authorities. By the change thus effected tasks were raised and the wages reduced, and the numbers on the works fell by the 10th of April to 9,422 workers and 1,580 dependants. As in the opinion of the local Government this reduced amount of relief was sufficient for the degree of scarcity existing in the district, the relief previously given must have been excessive.

In the Hissar district the delay which took place in the Gujrat district in placing large relief works under the direction of the Public Works Department did not occur, and the Ghaggar canal works were from the first efficiently managed. To assist the engineer officers in receiving, classifying and paying the workers, subordinate revenue officers were placed at their disposal and put entirely under their orders. This plan worked well, as it did also in the North-Western Provinces. In other districts the same policy was followed with regard to all large works. Small works continued to be managed by the civil authorities with such professional assistance as they could obtain from the district board establishments.

Wages of relief workers.

145. The fourfold classification of workers prescribed by the code proved, as in other provinces, too elaborate, and was abandoned for one of practically two classes, B and D, and working children. On some of the larger works class A was also retained for gangs which after some experience proved capable of doing an A task. On such works performance of the full or A task gave the working unit (ordinarily a family party of 3 or 4 diggers with the proper complement of carriers) the maximum or A wage of the code, while failure to perform it reduced the wage for the day to the minimum wage. It was claimed for this rule that it could be readily enforced by measurements which the workers themselves could understand and check, and that it made the penalty for indolence sufficiently great to act as a real stimulus. On the small scattered tank works in Hissar nothing higher than the B wage was allowed. In the calculation of the wage different methods were employed in different districts. In some the calculation was made by pricing each food item of the code ration. In others the alternative method of "grain-equivalents" allowed by the code, by which the

wage is stated in terms of grain alone and converted into cash by a price-table, was adopted. The second method was preferred on account of its simplicity, but was thought to result in a higher cash wage than the first. This was certainly the case when "flour" and not "unground grain" was taken, as was done on some works, as the basis of the "grain equivalents" wage. The practice with regard to the Sunday wage was equally diverse. On most of the large works work was stopped on Sundays, and the workers received the minimum code wage for the day. This was in accordance with the prescriptions of the code. But on the Ghaggar canal works in Hissar no Sunday allowances were given, and the workers might work or not on Sundays as they pleased. On the small tank works in the same district Sunday allowances were withheld, as it was thought undesirable to make such works too attractive.

The relief of dependants.

146. There was also divergence of practice in relieving the non-working children and infirm dependants of the workers. The code provides that the former may be relieved either by cooked food in kitchens or by cash allowances given to the parents; and that the minimum wage shall be paid to adult dependants. At first cash allowances were granted both for children and adult dependants. This plan was soon reported by many officers to give rise to abuses. On the Jhelum canal works the dependants numbered 40 per cent. and on the Ghaggar canal 24 per cent. of the workers. The alternative system of kitchens was accordingly directed by the local Government to be adopted. The reduction thereby effected on the Jhelum canal works in the number of dependants has already been noticed. In Hissar where distress was greater, the relief work kitchens were largely resorted to, though they were undoubtedly unpopular and operated to keep down the numbers of dependants. On the results of these experiments the local Government is in favour of kitchens for the relief of non-working children and other dependants in future famines, whenever they can be established without excessive cost. On the small tank works in Hissar the dependants were not relieved, for the same reasons that the Sunday wage was there withheld.

Numbers of workers and dependants.

147. In view of the importance which was attached to the dependants question in the Punjab, the following figures showing the number of workers and dependants at different periods of relief operations in the several districts, are of some interest. The ratio borne by the total number of workers and dependants to the population of each affected tract is also given, as it shows the extent to which the relief works were resorted to :—

District.	End of December 1896.			End of February 1897.			End of May.			End of June.			End of August.		
	Workers.	Dependants.	P. C. on population.	Workers.	Dependants.	P. C. on population.	Workers.	Dependants.	P. C. on population.	Workers.	Dependants.	P. C. on population.	Workers.	Dependants.	P. C. on population.
Hissar ...	7,636	654	1·5	37,258	9,842	8·7	49,448	8,457	10·6	64,543	5,469	12·9	6,838	1,516	1·5
Rohtak ...	...	...	...	2,714	709	0·7	6,678	1,540	1·8	7,545	1,665	2·0	...	...	...
Gurgaon ...	...	...	...	2,402	81	1·2	...	...	...	...	...	...	...	...	...
Delhi ...	142	...	·03	2,603	...	0·7	767	206	0·3	831	343	0·3	...	...	...
Karnal ...	2,710	108	·56	1,991	165	0·43	3,884	2,273	1·2	2,063	955	0·6	1,116	...	0·2
Umballa ...	...	...	...	3,726	304	0·6	2,131	...	0·3	491	...	0·07	...	...	...
Ferozepur ...	3,047	1,102	3·3	2,005	246	1·80	360	...	0 29	416	...	0·3	...	...	...
Lahore ...	...	...	...	8,530	...	9·5	...	...	...	...	...	...	...	...	...
Gujrat ...	15,108	6,729	14·1	29,713	19,669	31·8	3,807	1,256	3·2	...	...	...	...	...	...
Total ...	28,643	8,593	2·1	90,942	31,016	3·8	67,075	13,732	2·8	75,889	8,432	3·1	7,954	1,516	0·3

From these figures it will be seen that the "dependants" question was of importance chiefly in the Hissar, Gujrat and Karnal districts. In Gujrat it lost its importance after the introduction of kitchens, and the relief population disappeared as quickly as it had collected. In Hissar the extensive substitution of small works on which no relief was given to dependants for large works in May and June accounts to some extent for the decrease in dependants in the latter month. The ratio borne by the numbers of persons on relief works to the total population in any month, as compared with the corresponding figures for other provinces, is very small, except in the case of Hissar and Gujrat. In view of the severe distress existing in Hissar it is not surprising that over 10 per cent. of the population attended the works in May and June.

Village gratuitous relief.

148. No important departures were made from the prescriptions of the local famine code regarding the organization of relief circles, and the appointment of circle inspectors for superintending the distribution of gratuitous relief to the incapable poor in their homes. It was, however, found necessary to give such relief only in the four districts of Hissar, Rohtak, Karnal and Umballa, and even in these the numbers so relieved were few compared with the similar figures of other provinces. In Hissar 8,400 persons or 1·5 per cent. of the population were in receipt of gratuitous state relief at the time of maximum pressure. In the three other districts the ratio was very much less. The explanation of these low figures appears to be that in the rural areas private and village charity continued to act, and that in the towns a good deal of help was given to the poorer classes by charitable associations and the Indian Charitable Relief Fund, through the medium of cheap grain shops, and by giving them employment in spinning, weaving, and other occupations.

Poor-houses and indirect relief.

149. The code authorises the establishment of poor-houses for beggars and wanderers at the head-quarters of each sub-division of a district, and of soup kitchens in populous centres. In accordance with these prescriptions poor-houses were experimentally opened in several districts, but in Hissar alone were found to be required. Even in Hissar the inmates were for the most part wanderers from the adjoining native states, and the maximum number on any one day did not exceed 800. In the management of the Hissar poor-houses the chief departures from the prescriptions of the code were in respect of the diet scale. The code ration was found to be "not sufficient in quantity or variety to maintain people who had been suffering from hunger or both." Under the advice of the district medical officer the flour ration for a man, woman and child was raised respectively from 16, 14, and 12 ounces to 22, 20 and 14 ounces. The pulse ration for adults was raised from 2 to 4 ounces, and a vegetable ration was added of 8 ounces for adults and 4½ ounces for children. In other provinces similar departures from the poor-house dietary of the famine codes have been found necessary, wherever the general health of the inmates was bad. Indirect relief was given to the people by the suspension of Rs. 22,00,000 and the remission of Rs. 74,000 of land revenue. In Hissar 50 per cent. of the land revenue was suspended, and in Rohtak 35 per cent. The relief thus granted in the province is stated by the local Government to have exceeded the amount granted in any previous famine. Rs. 2,22,149 was advanced under the Land Improvement Loans Act and Rs. 11,54,490 for seed and cattle under the

Agriculturists' Loans Act. All these measures are in strict conformity with the prescriptions of the famine code.

Close of the operations.

150. The high water-mark of distress in the Punjab was reached in the month of June 1897, at the end of which month the total number of persons on relief of every kind was close on 100,000. From that date the numbers rapidly declined, and in October relief operations were entirely discontinued. No special measures were taken on the setting in of the rains to reduce the numbers on the works and to induce the people to return to their ordinary occupations, such as were adopted in Bombay and elsewhere. The famine, it is said, was allowed to die a natural death. In Hissar the tank work was automatically brought to a close by the heavy rainfall, and only a few large works remained open. Late in August the wages on these works were reduced somewhat below the code rate of wage; but this step was not taken until the crop prospects were assured.

——	June.	July.	August.	September.
Hissar ...	78,115	29,815	15,863	3,554
Other districts ...	21,018	5,747	2,184	2,084
Total ...	99,133	35,562	18,047	5,638

The degree of distress existing in the Punjab.

151. In describing the relief operations undertaken in the Punjab, the local Government has remarked that "if famine be the term applicable to the conditions under which people in considerable numbers accept employment at relief works rates of wages, then there was famine in nine districts: but severe famine such as visited the worst parts of the North-Western Provinces and the Central Provinces was present perhaps in the Hissar district alone." This accurately describes the conditions of distress which were met with in the Punjab. In a province less prosperous and among a people less self-reliant and stout hearted, the extent of crop failure and the dearness of food which were experienced throughout the Punjab would undoubtedly have called for much larger measures of relief. As it was, the relief given appears to have been sufficient. In Hissar alone did the numbers relieved and the expenditure approach the standards of other provinces. Out of a total direct expenditure of Rs. 22,34,000, Rs. 12,27,000 was expended in Hissar. The ratio of 14 per cent. to the total population attained by the numbers on relief in Hissar at the height of the famine, is low compared with the corresponding figures of other provinces. The average cost of the relief given, $\frac{1}{10}$th of a rupee per head per day, is also moderate. It will be elsewhere shown that, judged by the mortality statistics of the period of distress, the relief given was adequate to save life.

Commencement of operations.

152. **Berar.**—Berar is an instance of a province which, on account of its supposed immunity from famine, was without a programme of relief works and without a famine code of its own. The latter defect was to some extent remedied by the application to the province of the Bombay code, though its provisions were not in all respects suitable to local conditions. The want of a prepared programme of works was perhaps less serious than it at first sight seemed, as between the pronounced failure of the autumnal rains and of the crops in September and the time when the demand for State employment became large there was a sufficient interval to permit of

the preparation of projects for roads and other works. The first step taken was to expand the ordinary works of the district boards and municipal committees, and a good deal of employment was given on these in November and December. The district officers were also authorised to open test works as they deemed necessary, adhering strictly to the provisions of the Bombay famine code as regards tasks and wages. In the hilly tract known as the Melghat, a sub-division of the Ellichpur district, the Forest Department was entrusted with the management of relief of all kinds, and devised without reference to the code such measures as seemed most suitable to the circumstances of the aborigines. Regular relief works were opened in the Melghat in January 1897 and elsewhere towards the end of February. In March the total number of workers and dependants in the province was returned at 17,000. The number rose to 34,500 in April and 38,500 in May. From this point they fell to 32,000 in June, 29,000 in July and 9,000 in August. The total expenditure on relief works was Rs. 4,75,000. In the Melghat the relief workers represented in the months of maximum relief about 10 per cent. of the ordinary population (47,000) of the tract, but many of these were immigrants. In other districts not more than 2 per cent. of the population at any time were on the works. Compared with the corresponding figures for other provinces in which relief operations were undertaken, these figures show that in Berar relief through works was on a very moderate scale.

Conduct of relief works.

153. In the management of relief works in Berar there were many deviations from the code which was supposed to be in force. At first an attempt was made to follow the Bombay classification and rates of wages. But the classification was found too elaborate and the rates of wages and dependants' allowances were thought to be too high for small works, which were in the neighbourhood of the workers' homes and not very strictly managed. On the first works opened no Sunday wage was paid, and relief to dependants was confined to small children. Next, while the Bombay wage rate for male adults was retained, women and working children were paid according to the wage table in use in the North-Western Provinces and Oudh, which was itself a departure from the code of those provinces. This in effect gave all women workers the D or minimum wage of the code. The object of this change was to reduce the wages of the women and children, as it was thought that for these classes the Bombay rates of wage were too high and attracted persons who were not in actual want. The practice as regards the payment of allowances for dependants seems to have varied on different works, but in some cases whatever was given was given from the Charitable Relief Fund. Later on, when the rains had set in, the men's wages also were reduced to the North-Western Provinces scale. On some metal-collection works managed by the Public Works Department piece-work was substituted in March for task work, the rates being so fixed as to allow the women workers, who constituted the majority of the gangs, to earn up to the B wage. On a few works opened in the rains the North-Western Provinces intermediate system, or payment by results, without Sunday wages or allowances for dependants, was experimentally introduced. The rate per 100 cubic feet of earth-work fixed under this system by the North-Western Provinces rules was accepted without regard to the fact that food was at that time considerably cheaper in Upper India than in Berar, and it naturally proved insufficient for the support of the workers, and the works

on which the rate was not raised were deserted. On some works the rate was considerably raised, and the system was considered by the public works officers to have then given satisfactory results. But it was disliked by the people who had become accustomed to the less rigorous task-work system, and was not long in force. In the Buldana district the Godavari Valley Railway offered work through the agency of contractors, and efforts were made by the district authorities of Buldana and Basim to induce the people to go to the railway. But the contractors were under no obligation to regulate wages by the price of food, and they seem to have offered insufficient rates. At all events the railway work failed to keep the labour it at first attracted, and in the distressed districts Government relief works had again to be opened. This is one more illustration of the failure of public works under the ordinary contract system to meet the special labour requirements of a distressed population.

Relief works in the Melghat.

154. In the Melghat the conditions were peculiar, and the relief works were conducted entirely outside the prescriptions of the code. The want of water on the works and the danger of epidemic disease in the valleys, where the works were chiefly located, made it unadvisable to allow non-workers to come to the camps, and they were encouraged to remain in their villages. The wages of the workers on this account were calculated at a somewhat higher rate than the code allowed, and the workers were allowed to go away on Sundays to take their savings or the equivalent in food to their family in their villages. It was deemed inexpedient to strictly enforce tasks on the shy and distrustful aborigines, and the forest officers in charge of the works were satisfied if a fair amount of work was performed and refrained from exacting fines. A very considerable amount of useful road-making was in point of fact executed at a very moderate cost. The success attained in the Melghat relief works is an interesting instance of the necessity for departing from the ordinary labour prescriptions of the famine codes when relief has to be given to forest tribes unaccustomed to regular work.

Gratuitous relief.

155. Gratuitous relief in the Berars was mainly given in the form of poor-houses and relief centres. Except as regards the Melghat tract, there is little detailed information on record as to how these institutions were managed. At the district head-quarters the organization of the poor houses seems to have been generally on the lines of the Bombay code, and residence within the poor-houses as a condition of relief was more or less strictly enforced. But the poor-houses or relief centres opened in villages were more of the nature of kitchens at which food was provided without such condition to the needy. In all 25 such institutions were maintained in the province by official agency. But these were very largely supplemented by private charity, which seems to have been exceptionally active in Berar, and by the Charitable Relief Fund raised in the province and augmented by grants from the Mansion House Fund. Gratuitous relief in the homes of the people was on a small scale, and the systematic village inspection enjoined by the famine codes does not appear to have been organized.

Gratuitous relief in the Melghat.

156. In the Melghat gratuitous relief took the form of relief centres, where destitute wanderers were housed and provided with uncooked food, which they cooked for themselves, and given such light occupation as they were capable of. An interesting

account of the management of these institutions was given to us by the Reverend Mr. A. B. Windsor, Superintendent of the Korku and Central India Hill Mission, who was in charge of a large Government relief centre.

Indirect relief.

157. With regard to revenue suspensions and remissions the liberal policy of the famine codes appears to have been fully impressed on the Deputy Commissioners of districts. But the Commissioner reports that the cultivators preferred to discharge their dues, and that the land-revenue assessments are so light and the circumstances of the Berar raiyat so good that the revenue came in automatically without any coercion. We have no reason to think that the facts are other than as stated by him. The sum of Rs. 1,25,000 was advanced to agriculturists under the Land Improvement Loans and Agriculturists' Loans Acts. It would seem that some misunderstanding occurred as to the possible application to Berar of the special "famine advances" rules issued in the North-Western Provinces, which materially restricted the amounts advanced under the Land Improvement Loans Act. The special rules in question were meant to induce large land-owners in Upper India to undertake local works not of the nature of "land improvements" in their villages for the purpose of keeping their tenantry together. They provided for the State and the landowner sharing the cost of such works, and bound the latter to observe certain conditions as to the class of labour to be employed by him and the rates of wages to be paid. These rules are not suited to the circumstances of a ryotwari province where large estates are unknown, and even in Upper India they did not supersede the ordinary rules for loans under the Land Improvements Act. This was not understood at the time in the Berars, and a fruitless effort was made to apply the special rules of the North-Western Provinces to the province. We agree with the Commissioner that more money might have been beneficially advanced under the ordinary rules of the Act to occupiers of land. Such advances would, as in Bombay, have enabled this class to have employed labour on useful agricultural improvements and would have tended to solve the difficulty noticed by the Commissioner of inducing the village labourer of Berar to attend the State relief works.

Commencement of operations.

158. **Burma.**—Distress in Upper Burma really dates from the short and untimely rains of 1895-96 throughout the whole region. The early crops of 1896 were very short, and in the spring months of the year test-works were opened in several districts to ascertain the demand for labour. The people were, however, unwilling to work at famine wages which are considerably lower than the ordinary labour wages in those parts, and they got through the hot weather of 1896 by extensive emigration to Lower Burma and by various other expedients. When the rains failed in August and September 1896, test-works were promptly opened by the civil officers in the most affected districts—Meiktila, Myingyan, and Yamethin—and these were followed early in October by the opening of one small relief work in each district under the Public Works Department. The Burma famine code is not precise as to the method of managing test-works, but the practice appears to have been for the civil officer to fix a wage approximating to the famine relief wage of the code, which, as already said, is considerably below the ordinary market rate for labour. At a later date test-works were opened in the Magwe and Minbu districts, but as they did not attract many labourers, regular measures of relief were there deemed not to be required.

159. With the opening of the small relief works the provisions of the famine code were formally applied by the local Government to the whole of the Meiktila and parts of the Yamethin and Myingyan districts, comprising an area of 5,331 square miles and a normal population of 528,000. But over one-third of this population temporarily emigrated to Lower Burma where they found remunerative work. On the subject of emigration the code merely says that it shall not be interfered with by Government officers. On this occasion under the orders of the Government it was encouraged from the first in every possible way. Large sums were thus earned in Lower Burma, which were remitted home or brought back by the returning emigrants and did much to lessen the distress. It is the opinion of the local Government that in all future famines the encouragement of emigration should be a main feature of its relief policy.

Extensive emigration.

160. In the matter of relief works the first departure from the prescriptions of the famine code, which direct that in the first stage of a famine small works should be utilized to the utmost, was to close the small relief works and to concentrate the famine labour of the three districts on to a single large relief work—the earth-work of the Meiktila-Myingyan Railway. The local Government said that the people would need relief for some months and that large numbers of relief workers would have to be provided for. At the same time it was held that there were serious objections to opening works of the kind carried out in 1891-92. Such works consisted of roads which are not required, and of irrigation works—for the most part the digging of small tanks which in many cases are of little value. The difficulty of managing small works was also recognised, and it was considered that they attracted a number of workers who were not really in need of relief. It was not found necessary to open any other work besides the Meiktila-Myingyan Railway until the very end of the famine. This work was carried on simultaneously in the Meiktila and Myingyan districts, four large relief camps being established at distances from each other. In these camps 28,000 workers were frequently employed. They were under competent medical supervision, and much attention was paid to the hutting of the workers. The famine code directs that the workers should hut themselves, being given materials and leisure for the purpose. The materials had, however, to be procured from a distance and were expensive, and it was found to be more economical for the Department of Public Works to undertake the construction of the huts. Residence in the camps was not made a condition of employment as in Bombay, and workers whose villages happened to be two or three miles off the work could return to their homes at night. But the great majority of the workers came from long distances, as much as 50 or 80 miles, and had to reside. The reluctance of the Burmese to move away from the vicinity of their homes is said, "though very great, to give way to the pressure of necessity." This is seen in the great migration which regularly takes place from Upper to Lower Burma for the rice harvest. There was found to be no difficulty in the famine in drafting the people long distances to the railway. They came not as stray individuals but in village groups under a self-chosen headman, and in the organization of the works these natural groups were dealt with as working units.

The relief works.

161. The Burma famine code, like other codes, does not clearly specify the respective duties of the Civil and the Public Works officers in the management of relief works, though it directs that as far as practicable such works shall be professionally

Management of the Public Works Department.

managed. It was decided to leave the entire control of the Meiktila-Myingyan Railway relief works to the Executive Engineer of the specially formed Famine Division and his subordinates, the civil officers exercising sufficient general supervision to assure themselves that the works were fulfilling their object. The works were extremely well and methodically organized and managed by the Public Works officers, and the regulations made from time to time by them regarding the composition, tasking and payment of the gangs, the sanitary arrangements of the camp, and the like, were admirable of their kind. In these regulations many departures were made from the principles of the local code. The fourfold classification of workers was abandoned as too elaborate. Practically the great majority of the workers were classed as B (or able-bodied, but non-professional labourers). For the small minority of weakly persons who could not perform regular tasks a second (the D) class was maintained. Wages were calculated on the alternative method of "grain equivalents," allowed by the famine code, and in accordance with a peculiarity of the Burma code the B class workers in addition to the famine wage earned a small margin, which amounted to 6 pies a day for a man, 5 pies for a woman, and two pies for a child. The average wage was thus higher than on the relief works in India, but the Burma standard of living is higher than the Indian. If a good wage was paid, a good task was enforced, as is shown by the fact that the work done is valued at 75 per cent. of what it would have cost if executed by contract in an ordinary year. For each gang a daily task was fixed with strict regard to the number of men, women and child units composing it, and to the comparative hardness of the soil. If it was not done, the earnings of the gang were proportionally reduced, unless it was apparent that the short work was due to weakness. In payments the gang was treated as a unit, the wages of the individual workers being distributed by the headman.

Sunday rest and allowances to dependants.

162. After some experience it was decided to abolish the separate Sunday wage prescribed by the code, and while retaining Sunday as a rest day, to make a small addition to the wages of the working days. It was also decided to fix the daily wage in quarter-annas (or pice), this being the smallest coin actually used by the people. Another departure from the code was made in slightly raising the cash allowances paid to workers for their non-working children and other dependants. The allowance of one pice for a non-working child in particular was raised to two pice, as the former amount was found to be insufficient. Owing to so many of the able-bodied men having emigrated, there was an abnormally large proportion of women and children on the works. The earnings of a family were thus appreciably reduced, families containing a large proportion of non workers did not earn enough for their support, and the children were perceptibly under-fed. With the increase in the allowances the condition of the children at once improved. It may be noticed that 17·16 per cent. of the average camp population on the railway works were non-working children, and 0·33 per cent. adult dependants. Of the workers the men were only 1 in every 4.

Piece-work.

163. In August towards the close of the famine, when the railway work was nearly exhausted, piece-work was experimentally tried on a new work opened on the projected Mandalay Canal. The relief workers were paid entirely by results, no allowance being made for dependants. The advent of the rains and other adverse conditions prevented the work from filling, and no inferences of value can be drawn

from the experiment. One officer reports that the "substitution of piece-work for task-work was universally condemned by the better classes and by the workers themselves". The task-work system, as adopted on railway works, unquestionably yielded very satisfactory results from the point of view both of efficiency and of economy.

Gratuitous relief and other measures.

164. The Burma code makes no provision for the opening of poor-houses or kitchens, and they were not found necessary. There were no homeless wanderers in the distressed tracts, and kitchens as a substitute for cash allowances for dependants on the work or for gratuitous cash doles in the homes of the people are unsuited to the conditions of Burma. Whereas in India cooked food is regarded with dislike and suspicion by the people, in Burma it would be very popular and would attract crowds. Gratuitous cash or grain relief in the homes of the people for persons incapable of work is authorised by the Burma code, and was given in accordance with its prescriptions. The village headman as the "Local Officer" of the code prepared the lists, and the township officer, as "Circle Inspector," checked them and supervised the distribution of relief. This relief appears to have been under strict control, as less than 1 per cent. of the population were so relieved when the numbers were highest. It was not given in any village until it was clear that the village was unable any longer to support its poor, and then only to those actually in want and unable to work. Thus restricted it is considered by the civil officers to have been most necessary and useful. Indirect relief was given by remission of the *thathameda* or house-tax to the amount of 12½ lakhs of rupees. This is a relief measure not specified by the code, but one of obvious necessity. Rs. 1,82,000 was also advanced for purchase of seed. It will be seen that in this famine the great bulk of the relief was given by means of one large public work, and that the task-work prescriptions of the code, after being modified and expanded in details, proved sufficient and satisfactory. The famine operations of Burma may be regarded as an example of excellent administration under the most favourable conditions. There was a large public work admirably suited as a relief work, the people are used to travelling, and their habits and social conditions cause much less difficulty than in India. The distressed area was limited, and was bounded on the south by a country that was throughout the famine one of the principal granaries of India. There was no anxiety about the food supply. All that was wanted was employment for those who had been deprived of their necessary field employment and had no means to purchase food at the high price that obtained.

PART II.

PARTICULAR DEVIATIONS FROM THE PRESCRIPTIONS OF THE CODES IN REGARD TO THE SELECTION, ORGANIZATION AND MANAGEMENT OF RELIEF WORKS.

Questions to be considered in this section.

165. Relief works, in all but very exceptional tracts, must be the principal measure of relief, and it is, we think, the particular measure in which the greatest latitude must be allowed for adapting the form to the variations in local conditions and in the degree of distress prevalent. The existing codes hardly recognize any intermediate

stage between the conditions of districts in which no relief works are thought necessary, and of others in which the poorer classes are assumed to have absolutely no resources of their own, to require numerous relief works for their support, to be so destitute that every one coming to relief works requires a day's wage for the day he joined, and a minimum wage for himself and all his dependants that must not be reduced even for a day except in cases of undoubted and active contumacy, and then only under elaborate precautions. That there is a phase of distress in which all these provisions are necessary cannot be doubted, but it is equally true that there are other lighter phases of distress in which the assistance offered by comparatively few well organized relief works, on which payments are regulated more or less strictly by the outturn of work done and the industry of the workers, is sufficient if guarded by special arrangements for the weakly on the works and for those incapable of leaving their villages.

In the preceding section we have described separately, province by province, all the measures adopted for the relief of distress, and have noted those which were deviations from the codes. In this we propose to consider in succession the more important points in the management of relief works, and to show under each in greater detail how the procedure or system actually followed in each province differed from the prescriptions of the local code, and from the practice in other provinces, and the reasons which may be put forward in explanation of these deviations and differences. Although our final recommendations will be reserved for chapter VI of this report, it will often be convenient in following this comparative method to suspend the narrative of actual practice for the sake of explaining here in greater detail or with greater clearness the recommendations which we have made in that chapter.

The points which we thus propose to consider are :—

(*a*) The selection of relief works.

(*b*) The code system of task-work.

(*c*) The system of payment by results.

(*d*) The treatment of dependants.

(*e*) The relations of Civil and Public Works officers in connection with the management of relief works.

(*a*) *Selection of relief works; residence and distance tests.*

166. The following sections of the North-Western Provinces code relate to the selection of relief works to be opened during the course of a famine. The corresponding sections of other codes are noted in the margin :—

Relief works in the North-Western Provinces.

Section 34. In deciding upon the character and number of works to be opened at any one time regard shall be had to their prospective utility, and to the possibility of their completion within or soon after the period of scarcity. Ber F 6

Section 63. Relief works will be divided into two classes—'small' and 'large.' It should be borne in mind that while in the later stage of a famine 'large works' will be the backbone of the system of relief, 'small works' should be utilized in the early days of a scarcity. F 53 C sec

Section 55 of the Bengal code has, however, been amplified by the addition of two sub-sections of which one points out the advantages of tanks over roads as relief works and the other directs that "relief works should be sufficiently

numerous to supply labour tolerably near to the homes of those who require it" and that "there should be approximately one work for each 16 square miles of the affected tract," subject to the proviso that "there should not be many works open in the same tract with only a few people on each."

The principle laid down in section 63 of the North-Western Provinces code was not followed in those provinces and the departure from it has been thus explained in the Resolution on the administration of famine relief during 1896-97—

"While utilizing small works at all seasons to meet urgent demands for relief, we found it advantageous to employ them chiefly when the advance of the hot weather, and the scarcity of water or the outbreak of cholera had, in many localities, rendered it difficult or dangerous to keep large crowds of workpeople assembled at one place. But from the time famine declared itself till the works were finally closed, large works as a rule formed the backbone of the system wherever there were large numbers seeking employment, and no natural obstacles, such as dearth of drinking water, interposed to render such works impracticable. It is far easier to provide on large works than on small works that unceasing supervision of European officers which is essentially necessary to preserve proper organization."

As regards the North-Western Provinces and Oudh we have ascertained that for the week ending 27th February 1897 when the numbers were at a maximum, the number of relief works open in the districts officially recognized as distressed amounted to 228, the average number attending each being 5,417. The area of the affected taluks was approximately 33,843 square miles with a population of about 375 per square mile, so that the area served by a single charge averaged 148 square miles, or over nine times as large as prescribed in Bengal. If it be assumed that the affected area was mapped out into regular hexagons, each 148 square miles in area with a relief work in its centre, the maximum distance of any village from a relief work would have been 7·5 miles, the length of the semi-diagonal or side of the hexagon, while the distance between work and work would have been 13 miles. Of course such a regular and ideal distribution was impossible, but the figures indicate that the distances of the works from the furthest villages served by them could seldom have exceeded 10 miles.

Relief works in the Central Provinces.

167. In the Central Provinces also the principle of section 48 of the provincial code was departed from, the relief works consisting throughout the famine almost entirely of large works, the maximum attendance on small works carried out by the civil authorities being 68,202 against 415,474 units on the works under the Public Works Department. There were altogether 103 charges under civil officers and 178 under the Public Works Department. The maximum daily attendance on the latter amounted to about 570,000 including dependants, giving an average of 3,200 per charge. As all the charges were not open simultaneously the actual average would have been somewhat higher than this. The area of the affected tracts has been estimated at 55,174 square miles, so that there was a Public Works charge for every 310 square miles, the population being about 126 per square mile. This area is a little more than double that served by the North-Western Provinces charges, and the distance from a work of the remotest village served by it may be taken as averaging about 15 miles.

Relief works in Bengal.

168. In Bengal the prescriptions of sections 53 and 55 of the provincial code were very closely adhered to. In Behar there were 441 works in progress in the middle of June, or, taking the area of the five affected districts at 12,836 square

miles, there was a work for every 29 square miles, which on an ideal and equal distribution would be represented by a hexagon with a side of 3·4 miles, the average distance from work to work being 6 miles only. The population is, however, at the rate of 715 per square mile. In Darbhanga the average area to each work was 16 square miles which is the code proportion. The average number on each work in Behar when the attendance was at a maximum was about 800 including dependants. At the commencement of operations all works were carried out under the control of the civil officers, assisted by the district board engineers, but later on some of the works in the four districts—Saran, Champaran, Muzaffarpur and Darbhanga—were placed under the management of the Public Works Department, and in the three last districts large canal and railway works were started. But even in these districts the proportion of relief workers employed on works under civil agency to those on works under the Public Works Department was as 5 to 2, and elsewhere throughout the province there were no works under the Public Works Department. Out of 1,531 works undertaken throughout the province no less than 1,416 were on tanks and reservoirs or earthwork on roads. It may therefore be said generally that from first to last small works formed the backbone of the system of relief, and about half of these may be classed as village works.

Relief works in the Punjab.

169. The codes of other provinces do not lay stress on the importance of small works as the backbone of the system of relief at the early stage of operations, but the system actually adopted in each may be noted. The policy adopted in the Punjab was that of commencing operations as soon as possible upon large and important public works, for which there was ample provision in the provincial programmes. The Deputy Commissioner of Hissar states that relief works began on the 9th November, and applicants were at first engaged only in digging tanks. By the end of the month, however, large public works were opened, and as each was started, all work on tanks within a radius of 25 miles was stopped. In the month of April tank works were reopened, and by the end of May out of 165 works open, 152 were village tanks, which were opened as the larger works approached completion. The monsoon broke on the 12th July, from which date the attendance (60,000) on relief works gradually decreased until the 25th September when all works were closed, but the number of tanks in progress at the end of August was six only, the labourers having all gone off to field work. Throughout the Punjab large works formed the backbone of the system of relief from the commencement, but in the Hissar district, which was the most seriously affected, small village works were found invaluable towards the close of operations.

Relief works in Bombay.

170. As to Bombay we have evidence that in the central division comprising the Sholapur, Ahmadnagar, Poona, Nasik and Khandesh districts there were at the time of maximum attendance 116 works for an affected area of 25,786 square miles, or one work to every 222 square miles. At a later stage as road works were closed and drafts were made to the larger works, the area served by each work must have been greater. The numbers on each work at the end of May averaged 2,310. The population is about 170 per square mile. Except in part of the Khandesh district, the area of which is excluded in the figures above, the number of small works under civil agency was inconsiderable. There were no tanks or other

village works under the Public Works Department, and at the commencement of operations the works consisted almost entirely of road work, principally the collection of metalling required for the next five or ten years. Eventually projects were framed and started for large irrigation and railway works, to which labour was drafted from considerable distances as operations on the roads were contracted. It was considered that these works would not only be more useful than the road works, but also preferable for relief purposes, as it was thought that the road works were too popular, owing to their nearness to the villages, Nothing has been more noticeable in Bombay than this apprehension on the part of all officers, whether in the Civil or Public Works Department, that the works were attracting many who were in no absolute need of relief. By almost all officers it was considered undesirable that the works should be near the villages, and in some cases it appears to have been the practice to insist on a distance test, and to actually refuse to admit to the works those who had come from distances of less than 10 miles, or at least to take the first opportunity of drafting them to more distant works. Although conditions of this kind were not approved by the local Government, it agreed to a rule that on all works on which proper hutting arrangements had been provided residence should be made a condition of relief. Compulsory residence is nearly akin to a distance test, for if a man is not allowed to return to his village at night his position differs little from that of those whose homes are 10 miles or more away. This rule cannot be regarded as a departure from the prescriptions of the Bombay code, though not directly enjoined by it. For elaborate instructions are given in section 88 and in an appendix for the constitution and management of camps for large relief works, and a general obligation of residence is implied in section 93, in which the officer in charge is empowered to grant tickets of leave to relief workers desiring to visit their homes, but is cautioned to guard against any abuse of this privilege, which might tend to cause a falling off in condition. It thus appears that in Bombay large public works were relied on not only as the backbone but as almost the entire framework of the system of relief works. The distance of such works from the homes of the labourers, which in other provinces was regarded as the great objection to them, was here looked upon as a positive advantage, while the cost of hutting, which is a second objection, was accepted as a smaller disadvantage than the laxity of discipline and control caused by the workers returning to their villages at night, and as a useful check on excessive popularity.

Relief works in Madras.

171. In Madras also the number of small or village works was inconsiderable. The relief works consisted mainly of road works with a few irrigation works, the proportion being nearly 4 to 1. But the policy followed was the opposite of that favoured in Bombay. So far from a distance test being regarded as desirable it was considered the first essential of a relief work that it should be as close as possible to the homes of the workers, and the concentration of large bodies of labour even on works of undoubted utility was not encouraged if it involved the labourers leaving their homes. Residence on the works was thus almost unknown. The Chief Engineer mentioned in his evidence before us the case of an irrigation project consisting of a channel 26 miles long and estimated to cost Rs. 3,00,000, upon two miles of which only were relief labourers employed. He was of opinion that a fuller programme of useful irrigation works could be

prepared if the obligation of showing that they would be financially remunerative were relaxed. The possibility of including such works in the programme must however depend greatly upon the views held in regard to the permissible distance of a relief work from the villages. The affected area in the four Deccan districts has been reported as 14,803 square miles, and for this area 140 works were open at the end of June, with an average attendance of about 2,500 workers. There was thus one work for every 106 square miles, as compared with 148 square miles in the North-Western Provinces, where the population is much denser.

Relief works in Burma.

172. In Burma relief works consisted entirely of works of public utility. Of the total expenditure incurred 95 per cent. was on the Meiktila-Myingyan Railway, and the labourers were drafted from long distances to this work. The other works upon which labour was employed were also useful works, such as roads or irrigation tanks. The Burma officers are all opposed to small works, and the Lieutenant-Governor fully accepts the view that large public works should form the backbone of future famine relief programmes.

Average area and population served by relief works in different provinces.

173. In considering the average area served by a work some regard must necessarily be had to the density of population and the size of the work, and the following table summarizes the information that has been given above on these points:—

Province.	Average area served by each work in sq. miles.	Density of population per sq. mile.	Average population served by each work.	Maximum attendance on each work.	Maximum percentage of population on works.
North-Western Provinces and Oudh	148	375	55,250	5,417	10·2
Central Provinces	310	126	39,060	3,200	8·2
Bengal (Behar Districts). . .	29	715	20,735	800	3·8
Bombay (Central Division) . .	222	170	37,740	2,310	6·2
Madras (Deccan Districts) . .	106	136	14,416	2,500	17·3

The figures in the last column must not be taken as showing accurately the maximum percentage of the population of the affected areas relieved on the works, which has been separately considered in the following chapter of this report. They represent it, however, very closely, except in the case of the Madras Deccan, in which the maximum percentage was much greater. The reason of the difference is that in the table above the figures for the Madras Deccan have been taken for the week ending 24th June, the number of works open on that date being known. At the end of July the numbers on works were much greater, and the proportion to the population affected rose to 24·4 per cent., but there was possibly an increase also in the number of works.

Origin of the code direction that small works should be opened in the earlier stages of scarcity.

174. Having now stated the general practice in each province in the selection of relief works, it remains to state the general considerations affecting the question. The directions contained in section 63, North-Western Provinces code, and in sections 53 and 48 of the codes for Bengal and the Central Provinces are taken *verbatim* from paragraph 5 of the Government of India Resolution No. $\frac{35}{33}$, dated 24th August 1893, but if this paragraph rests upon paragraph 21 of the Resolution of the 9th June 1883, which it quotes, it does not very correctly represent the purport of it. There is no allusion in this paragraph

21 to small works, but it is stated that "the Government of India considers that in the first stage of a scarcity sufficient relief can be given by the extension of the ordinary system of public works, especially those of a local or municipal character." All that seems to have been then intended was that until "distress has declared itself in an unmistakable manner" large new public works, whose main *raison d'etre* was the affording of employment for the distressed, should not be recklessly undertaken. The use of the term "small works" in the resolution of August 1893 seems to have led to a misapprehension, as in some of the codes the term is defined to mean works specially intended for the relief of the agricultural population in the vicinity of their villages. There is nothing, at least, in paragraph 21 of the resolution of June 1883 to indicate that works of this class should be started at the first note of alarm. It is shown in paragraph 406 of the sixth chapter of this report that the policy recommended by the Famine Commissioners and accepted by the Government of India is that arge and useful public works should form the backbone of the system of relief, ot merely at the later stage of a famine, but from the moment that distress has eclared itself in an unmistakeable manner. All that paragraph 21 of the reso- tion of 1883 can be held to declare is that until this has happened the expan- on of works of a distinctly public character, whether Imperial, Provincial, Local Municipal, on the sanctioned administrative programme, should suffice to meet .e demand for employment, and not that a programme of small or village works is to be embarked on and persevered in throughout all the earlier stages of famine, or until so nearly exhausted that the opening of large public works becomes a necessity. We do not wish to deny that there are tracts in many provinces where it may be advisible to begin with small works at the test work stage, and to maintain them for some time later. Where the poorer classes are very wanting in energy, and unaccustomed to leave their homes, or where they are peculiarly shy, obstinate, or apathetic in temper, it is probable that till to some extent broken in to relief work they will be dangerously slow in resorting to large works at a distance from their homes. Again it often happens that in the earlier stage of distress the mass of the really able-bodied labourers can still find private employment near their homes, or at a distance, at wages sufficient to support themselves but not their families. In this case it is only their women and children, and the most inefficient of the labouring men, who will resort to relief works, and it might not be safe to insist on their going to a distance, nor would they form gangs well suited to earn a living on large public works. All we wish to assert is that the right policy is to use large works as soon as it is believed that they will be efficient measures of relief. We believe that experience shows that in most parts of India they can be made effective at a very early stage, if not at the very commencement of operations.

Small works insufficient for relief purposes.

175. In the North-Western Provinces the policy of small works throughout the earlier stages has been declared to be bad economy and insufficient for coping with real distress, and in the Central Provinces, the Punjab and Bombay it has been rejected in practice. It has, however, been strenuously defended by the Government of Bengal as the only one applicable to that province. But it is admitted that if at the commencement of operations the programme of public works afterwards adopted had been available, an earlier and more extensive resort to large works would have been possible even in Behar, and

also that in future large works should be opened from the first wherever practicable. If this is clearly understood, the contention of the Bengal Government that in that province reliance must in the main be placed on small works may, we think, be accepted. And Bengal has given satisfactory proof that with a low wage and with a high and strict task a distance test of any kind is unnecessary. The figures given above show that not only throughout Bengal, but also in the Patna division, the maximum proportion of the population on relief works did not exceed 4 per cent., though there was a work for every 29 square miles in Behar. Even in Darbhanga where the code proportion of a work for every 16 square miles was observed, the maximum number of persons on the works was less than $6\frac{1}{2}$ per cent. of the population of the affected portion of the district. In this district the Blackwood system was almost universal, and payment was strictly according to results. But however efficient may have been the labour test in Bengal, the charges appear to us to have been too small. Where village works must be resorted to we prefer the village circuit system adopted in south Allahabad, under which a charge comprised four or five adjacent small works in a group of villages at one portion only of the circuit, though labourers were admitted from all villages in the circuit. When these were completed, the works in another group of villages were undertaken, and so on throughout the circuit, the average numbers in a charge being about 5,000. This system facilitates discipline and supervision, requires a smaller establishment, and introduces for all villages in turn a certain distance test of some value in restricting the attendance to those really in want, though too mild to be really prohibitive or even oppressive.

Proximity of the works to the homes of the labourers in Madras.

176. The question of small works has not arisen in Madras where, as already stated, the programme has consisted almost exclusively of public works, principally roads. But the question of small distances must be considered here. It has been shown that the average area served by each work in the Madras Deccan has been at most 106 miles against 29 in Behar and 148 in the North-Western Provinces. But this must be considered also with reference to density of population, which for the tracts affected is 715 per square mile for Behar, 375 for the North-Western Provinces and 136 only for the Deccan. After allowing for the fact that the villages in the Deccan are generally far apart, surrounded by large areas of poor arable land interspersed with much unculturable waste, it is evident that the average area really served by each work was as compared with Bengal and the North-Western Provinces smaller than the figures indicate. We are not however prepared to assert that these areas were too small. Some of us are disposed to hold that at times in the Madras Deccan an unnecessary proportion of the population was attracted to the works, but if this was the case it may have been caused by a high wage and a task not strictly enforced, rather than by an undue proximity of the works to the homes of the labourers.

generally involve larger establishments and the foregoing of many useful works, for which in Bombay at any rate there appears to be still considerable scope. It is wrong indeed to argue that because a great many labourers evince no strong objection to attending works at a distance, it may be assumed that all who are really in need of relief will think little of leaving their villages, but it is equally unreasonable to aver that because a considerable number of the population will rather die than leave their villages, therefore all work must be given to all close to their own homes. Works should not be started at a distance from villages for the sake of instituting a distance test, but because the work will be in itself more useful than work nearer the villages, or will relieve the pressure on such village works as may have to be opened for the relief of those who cannot leave their homes. Where large works are started, with a view to attracting labourers from a considerable distance, hutting or suitable accommodation must be provided, and the money will be well spent if the works will thereby serve a larger area, but the Bombay plan of making residence in a relief camp compulsory, however near the village, is one which in our opinion it is difficult to justify as either necessary or desirable.

General policy as to large and small works.

178. The policy in this matter of large and small or public and village works which we are disposed generally to recommend is that which was followed in Hissar. Where larger and useful public works are available they should be opened as soon as possible after distress has declared itself in an unmistakable manner, and no small works should be maintained within a reasonable distance. This distance must vary in different districts according to the capacity of the works started for employing labour, the density and character of the population, and many other considerations, but if, for example, it be at first fixed at 20 miles it may be gradually reduced by opening small works first in the more distant villages. The large works will attract all wanderers, and the village labourers who will be the first to feel the pinch of distress. Agricultural works undertaken by the village landowners, with or without advances from Government wholly or partially recoverable, will be useful at this stage in providing employment for the small cultivators and others who cannot easily leave the village. As the hot season which precedes the rains comes on, operations on the large public works may with advantage be contracted, especially on those which cannot be kept open during the rains, and village works may be gradually opened. The advantages of this policy are obvious, but it will not always be practicable or even the best. It may be that no public works can be proposed which are at all suitable for relief works, or it may be that an extended scheme of private or village works may be more beneficial to the community than any public works that can be suggested. It seems probable, for instance, that in the Central Provinces a good deal of village tank work might have been done in the plateau districts which would have been more useful and more efficient for relief than some of the road work, and in dealing with some of the hill tribes there are special reasons for preferring village works. One witness was of opinion that in south Allahabad the tank work has been of greater benefit to the village communities than all the money spent on roads, whereas we have had evidence that in the Agra district tank work is not required. In such a district as Hissar tank work is undoubtedly more beneficial than embanking roads in a sand-swept desert, and if no irrigation scheme had been available in that district, operations would have been almost of necessity

confined to tank work. If the programmes of both village and public works have been made as full and complete as possible, the local officers should seldom have much difficulty in deciding on the most suitable plan of operations. Large works should not be opened for the mere sake of securing a distance test, nor should small works be preferred under the idea that work for all must be brought to their doors. When large works are practicable the people should be induced to go to them by the prospect of being able to earn more than on village works. The nearer the work to the villages the greater should be the restriction in possible earnings, and the more rigorous should be the labour test, payment being made as far as possible according to results and the maximum wage being limited, so long as the people show no signs of deterioration of condition, to something less than the full ration wage. With these precautions the risk of many coming to the works not really in need of relief will be reduced to a minimum. We may here observe that as long as the labour test is efficient we do not hold the view urged by some witnesses that the fact that many will attend works when close to their village, who will not follow them to a distance, necessarily proves that such persons were not in need of relief, and we invite attention to the remarks on this subject in paragraph 458 of chapter VI of this report. There is, however, a real danger of works being too popular when very near to villages, against which the most effective precaution is an efficient labour test, and as long as this is maintained there is little risk of many coming to the works who are not in need of relief, though it will always be difficult to prevent a few cases of the kind.

Utilization of the agency of village landowners and headmen on village works.

179. We have elsewhere alluded to the practice followed in the North-Western Provinces of utilizing the agency of landowners and village headmen in the construction of petty agricultural or village works which would afford employment to distressed persons of the cultivator class and their families under conditions less repellent to persons of this class than attendance at ordinary works. In some cases the whole cost of these operations was borne by Government, in others advances, partially or wholly recoverable from the landowners or headmen, were made. A note on this important question by our colleague Mr. Bose is included among the appendices to our report. From the evidence laid before us we conclude that works of this class are useful, but that there is a real difficulty in excluding from them people who should be required to go to ordinary relief works. In reply to our question whether the duty of selecting the proper persons or families to be employed on these supplementary village works could not be imposed on the civil inspecting agency the witnesses answered generally to the effect that the duty of making such a selection would be an onerous addition to the ordinary work, and that it was also doubtful whether the agency could make the landlords conform to the selection when the work was to be carried out by loan, and they were not inclined of their own free will to conform. Some witnesses, however, said that the system might, in their opinion, be tried, and Sir A. MacDonnell, in an interview with the Commission at Lucknow, concurred that it might be suggested for experiment. There is no doubt a great reluctance on the part of the small landholders and tenants of certain districts or certain castes to attend ordinary relief works or to allow their women to attend, which in some cases seems to have been strong enough to lead to an increase in mortality. In Balaghat and Bhandara, for instance, the Deputy Commissioner noticed that while the labouring

classes attended the works the tenants would not, at least unless they could go and return in the same day, and that in consequence people of this class were in many villages found to be living at their homes in a terribly reduced condition.

(*b*) *The code system of task-work.*

Code system of task-work.

180. The code system of task-work comprises four distinct heads :—

(1) Classification of labourers.

(2) The daily wage.

(3) The task.

(4) The penalties for short work.

The prescriptions of the codes of all provinces under the first and second of these heads differ very slightly, and are explained at length in chapter VI of our report. Under the third the codes of three provinces (the North-Western Provinces, Bengal, and the Punjab), which in this respect follow the prescriptions of the resolution of the Government of India of August 1893, exact a higher task from two classes of labourers than the other codes do. The following table shows the general system of classification and the task and male adult wage attached to each class :—

Class.	Task.		Wage in ounces.	Percentage of full wage.	Remarks.
	The three Provinces.	Other Provinces.			
(Class A.) Professional labourers	100	100	42	100	The figures 87·5 under task against class B represent the mean between 85 and 90 per cent. The codes in question allow the B task to vary between those figures.
(Class B.) Labourers but not professional.	87·5	75	38	90·5	
(Class C.) Able bodied, not labourers.	75	50	32	76·2	
(Class D.) Weakly ...	Not defined.	Not defined.	28	66·6	

The differences under the fourth head are also slight. To show the general system of the codes in respect to this subject of penalties for short work we may quote as an example the provisions regarding it of the North-Western Provinces code. Section 70 of the North-Western Provinces code is as follows :—

70. The system of payment by results, or by the "task" allotted to a particular class of relief workers, shall be invariably followed. A task is the maximum amount of work allotted to a particular class of relief workers, and though short work will entail short payment no relief worker is expected or permitted to perform more than his task.

This must be read, however, with sections 92 and 93, which are as follows :—

92. A relief worker must never earn less than the minimum wage, except temporarily in cases of contumacy; and contumacious characters will either be fined below the minimum or sent to the poorhouse.

93. Fines may be imposed for short work, provided that the daily payment does not fall below the minimum wage, except as provided in section 92.

It must be understood that fines are not meant to meet short work due to weakness rather than wilfulness.

The minimum wage is defined in section 105 as the amount of money sufficient at current rates to purchase (*a*) the minimum ration or (*b*) the grain equivalent of the minimum ration. The minimum ration is given in section 102, and the corresponding grain equivalent is 28 ounces for a male and 26 ounces for a female, so that the minimum wage corresponds with the wage for class D. The North-Western Provinces code and the other codes containing similar provisions therefore clearly contemplated that workers in classes A, B and C should be fined in proportion to the deficiency of work outturned, but subject to the condition that the daily wage should never be below that of class D, except in cases of contumacy. Or it may be said that labourers in the three first classes were to be paid by results, or by the quantity of work outturned, subject to a maximum wage not exceeding that prescribed for their class, and a minimum not less than that prescribed for class D, except in cases of contumacy.

North-Western Provinces rules of December 1896.

181. The most important deviations from the prescriptions of the famine codes in the code system of task-work were those initiated by the Government of the North-Western Provinces and Oudh on the strength of the experience that had been gained on the relief works opened during the Bundelkhand famine of 1896. The authority for most of these deviations will be found in resolution No. 18-P. W., dated 5th December 1896, and in the rules referred to therein as issued for the guidance of officers employed on relief works conducted under the provisions of the famine code and carried out by the Department of Public Works. These rules were subsequently adopted with some unimportant modifications in Bengal and the Central Provinces. It will therefore be convenient to consider, in the first place, the system established by these rules in modification of the system of task-work set forth in the chapters of the provincial codes relating to famine relief works.

Task-work classification initiated in the North-Western Provinces.

182. In the modified task-work system initiated in the North-Western Provinces the classification of the code was abandoned altogether, and adult labourers were divided into three classes, as follows:—

Class A.—Special, comprising mates of gangs and other persons in responsible posts.

Class B.—Able-bodied diggers and men in special gangs.

Class D.—Other workers, mostly carriers.

Class A included men only. Class B would include women able to dig, but practically consisted entirely of males. Class D consisted mainly of women, but included all weak and feeble men unable to dig or without any special qualification. Children formed another class as regards wages, subdivided into large and small, the former including all working children between 12 and 16 and the latter those under 12.

Task-work wages initiated in the North-Western Provinces.

183. The table given in paragraph 100 of this chapter shows the wages fixed by the resolution of December 5th for the three classes described in the preceding paragraph. It will be seen that they were nominally those prescribed for corresponding classes in the codes except that the wage of a worker in class A was defined as "six pies more than that of a digger," and that a woman digger was allowed only 32 ounces of grain instead of 34 ounces prescribed in the code for a female in class B. The great majority of the labourers (almost all the women, and all men who

could not dig and had no other special qualifications) were in class D, and could earn no more than the wage of this class, or the minimum wage of the code, *i.e.*, 28 ounces for a man and 26 for a woman. The wages for working children were fixed at 20 ounces of grain for big children (between 12 and 16 years) and 12 ounces for small children (7 to 12). These were the nominal grain wages, but the wage actually paid was seldom sufficient to purchase these weights of grain owing partly to the operation of the pice rule which is explained in paragraph 457 of our report, and partly to the difference between the grain rate used as a basis for the calculation of wages and the actual market rate, to which reference has been made in paragraph 100. Take, for instance, the grain wages of males of the B and D classes. Under the rules these will be 38 and 28 ounces, and with a grain rate of 20 lbs to the rupee, which was that most commonly in force in the more distressed districts, the corresponding wage would be 1·9 and 1·4 annas, but under the pice rule the actual wage would be 1·75 and 1·25 annas, and when the actual price of grain was only 17 lbs to the rupee these wages would purchase only $29\frac{3}{4}$ and $21\frac{1}{4}$ ounces respectively. Similarly under the rules small working children are allowed 12 ounces of grain, but with a grain rate of 20 lbs. to the rupee and the pice rule the wage would suffice for the purchase of 10 ounces only, and if the actual market rate were 17 lbs. to the rupee the wage paid would purchase only $8\frac{1}{2}$ ounces or 29 per cent. less than contemplated in the rules.

System of tasking under the modified system.

184. Under the North-Western Provinces modified system the only persons who are really tasked are the diggers, or members of class B. It is found that in practice, owing to the small proportion of men and the short lead on most works, the number of carriers is greatly in excess of requirements, that they must be taken as they come, and simply distributed among the diggers as effectively as may be possible, and without any attempt to fix a carrier's task. The carriers, who received only a D wage, were thus often but very lightly tasked, but no records are available showing to what extent this was the case.

Penalties for short work.

185. If the task performed was short of that set to the gang the mate and diggers were usually fined one pice each. If very short they were fined two pice each, and the carriers were also fined one pice all round. Under sections 92 and 93 of the code already quoted, the carriers were not liable to fine, the D wage being the minimum wage, but the practice of fining one pice below the minimum wage was so common in the North-Western Provinces that the minimum wage appears to have been understood by all witnesses as a wage one pice below the D wage, corresponding as nearly as may be to the wage that will purchase the penal ration prescribed in section 103 of the code. It will thus be seen that not only were all able-bodied labourers other than mates, diggers, or workers in special gangs placed in the D class, but they were liable to be fined at least one pice below the wage of that class, which is the code minimum for relief workers except in cases of contumacy. In cases of very short tasks the wage appears to have been even further reduced in some districts to two pice below the D wage.

Variations in modified task-work system in Bengal and the Central Provinces.

186. In Bengal and the Central Provinces, the North-Western Provinces rules appended to circular No. 18-P. W., dated 5th December 1896, were, as already stated, adopted in both these provinces with but little modification. As far as Bengal is

concerned, the principal difference in the modified system of task-work was that the proportion of carriers to diggers was carefully regulated so as to give the former a full task. This can be done more readily in Bengal than in the North-Western Provinces, partly because the proportion of diggers is higher, and partly because there is so much tank work upon which long leads can be given. In Bengal it sometimes occurred that diggers were required to carry, and able-bodied male carriers were enrolled in class B. The ordinary carriers, however, while receiving only the D or minimum wage, were usually given very much fuller tasks than in the North-Western Provinces, and for short tasks were liable to what is called the penal wage, which may be one or even two pice below the D wage. In the Central Provinces there was a larger proportion of class B labourers as a great deal of the work is road-metalling work, and men and women who could perform a B task fell into that class. On earthwork, however, the classification was the same as in the North-Western Provinces and practically all women went into the D class. In both provinces the pice rule of the North-Western Provinces obtained, but the wage basis rate was fixed by the Collector or Deputy Commissioner and appears to have approximated more closely to the market rate than in the North-Western Provinces, though not as closely as contemplated in the codes.

Task-work in Bombay.

187. The North-Western Provinces rules of 5th December 1896 were not adopted in other provinces, and the code system of task-work was more closely adhered to. In Bombay the code classification was in the first instance strictly followed, but by degrees the C class was practically eliminated, and the wage came to be determined rather by the task achieved than in accordance with any *á priori* classification. In most districts fines for short work were imposed that would reduce the wage to the D or minimum limit, or below it, but as a rule the wage never fell short of the D wage by more than one pice. The wage basis was altered from time to time by the officer in charge of the works, in accordance with intimation of the market rates received from the tahsildar. The method of grain equivalents was adopted, and the wage basis closely followed the market rate. Wages were paid weekly, the amount for the week being calculated to the nearest pie and paid to the nearest pice.

Task-work in the Punjab.

188. In the Punjab relief workers were originally classed and tasked in strict conformity with the provincial code, but eventually class C was eliminated, and class A only retained in favour of the best workers on some of the larger works. The carriers were not however put into a separate class from the diggers as in the North-Western Provinces. All able-bodied workers, whether diggers or carriers, were placed in class A or B, and class D, as the codes intended, consisted entirely of weakly persons, able to perform only a very light task. On most works those thus placed in class A or B were fined down to the D or minimum wage if they failed, even by very little, to perform the full task assigned to them. There was no intermediate payment for short tasks—if full task was accomplished the A or B wage was given, but if it was short then only the D wage. This system which was a deviation from the code seems from the evidence to have worked well in the Punjab. It has the advantages of simplicity, and of giving the gangs a substantial motive for accomplishing their tasks. The inconvenience of pie payments was felt here too, and in some districts the system was

adopted of calculating the A male wage to the nearest pice, and making the A female and B male wage 1 pice lower, and so on throughout the scale. This was a deviation from the code, and the wages as thus determined would agree throughout exactly with code rates only when the wage basis was 8 seers to the rupee. In some districts of the Delhi division wages were somewhat reduced on the ground that the cost of the "other items" of the ration was less than three-fourths the cost of the grain item, the proportion assumed in the grain equivalent rule; the assumption that the ratio was one-half only was adopted in the calculations.

Task-work in Madras. Classification and wages.

189. In Madras no professed alterations were made in the system of task-work prescribed by the provincial code, but in practice what were virtually important deviations were freely permitted. At first in accordance with the code separate gangs were made up under each class A, B, C, and D, and workers of different classes were not allowed in the same gang as was the practice in other provinces. In the beginning of the famine the policy was to fine the gangs freely if the task was not performed, or to reduce whole gangs to a lower class if fining was ineffectual. Later on this severe system was followed by a strong reaction, and the D class and wage were abolished altogether, the weakly being put into class C, and all the able-bodied into the A or B class. The prescriptions of the code appear to have been relaxed even further than this in places, for the evidence seems to show that at this time in the three principal districts, Bellary, Kurnool and Cuddapah, all labourers whether able-bodied or weakly were put into class B, with the exception of a very few who received the wage of class A, the numbers shown in class C or class D being generally the recipients of the rest-day wage. In this way the carriers, including male children over 12 years of age, all received the B wage, the result being that in the case of males they received as much as the able-bodied diggers (38 ounces in grain), while the women and female children over 12 received two ounces less only.

The task in Madras.

190. As regards the enforcement of the task the provisions of the Madras code seem to be conflicting. It is true that section 106 directed that no deduction of pay should be made when the officer in charge of the work was satisfied that the failure to work was due to weakness, or was not due to any neglect on the part of the labourers, and that as a general rule the effect of fines must not be to reduce the wages below the minimum or D wage; but in paragraph 28 of appendix VI of the code a very strict system of payment by results is laid down, without any qualifications, under which for every deficiency of 10 per cent. on the full task, 10 per cent. of the wage was to be deducted, the wage for less than 10 per cent. of the task being *nothing*. At first the Government ordered tasks to be strictly enforced according to the provisions of the appendix. But the Famine Commissioner objected, and the Sanitary Commissioner was of opinion that the gangs were deteriorating in condition. Moreover the tasks prescribed in the code were found excessive and had been framed on a not very intelligible basis. They were consequently reduced, and under the subsequent orders of the local Government, issued when the hot weather had set in, further reductions were permitted in the task in consideration of the distances from which labourers came to the works, and on account of weakness. Orders were at the same time issued which had the practical effect of prohibiting fines altogether, so that the amounts

of the tasks nominally set became a matter of little importance. Later on, or towards the end of July, orders were issued for a stricter system of tasking, but on the whole it may be safely said that the labour test was less severe in Madras than elsewhere, while the average wage paid to the relief worker was higher, and that throughout the greater part of the relief operations the tendency was to relax the provisions of the code in favour of the workers, not to tighten them as in other provinces. On the other hand there are features in the Madras relief arrangements which may to some extent modify this comparison. We refer to the treatment of dependants, and the low quality of the grain on which wages were commonly calculated. These features have been fully described in paragraphs 124 and 126 of part I of this chapter.

Task-work in Burma.

191. The only deviation from the task-work system of the code in Burma was that the fourfold classification was abandoned, and only two classes, B and D, were recognised, the former including all workers capable of doing a fair task, and the latter the weakly who were only able to do very light work. With this modification the system worked very well, as the people are energetic and have a power of combination which assists the formation of gangs and the mutual completion of the tasks.

Objection to the code system of classification.

192. Having now described the deviations from the code system of task-work that occurred in all provinces, we offer a few remarks on the leading questions involved. It seems, in the first place, clear that the code system of fourfold classification is too complicated to be workable. Another objection to the code classification is that it is meaningless and unnecessary, when considered with the rules as to task and wages for each class and the rules as to short pay for short work. A reference to the table in paragraph 180 will we think show this to be the case. The task for class D is not defined, but is meant to be very light or nominal, and the wage for class D is also not liable to be reduced for short work as the other wages are. If, however, the scale of tasks and wages for the other three classes A, B, and C which obtain in the codes of the North-Western Provinces, Bengal and the Punjab are compared, it will be seen that approximately the full wage for each class is proportionate to the task. If that is so, and if the actual wage paid is reduced in proportion to the share of the task left undone, the use of these three classes is not obvious. It is much simpler to say that if a man does a full task he shall get a full wage, and that if he does less he shall get a wage reduced in proportion, subject to the limit of the D wage, which is two-thirds the full wage. It would make no difference, either in principle or practice, if a system of payment by results within the maximum and minimum limits set forth in the table above were substituted for the elaborate classification of the code.

Further objection.

193. The code classification is open to another objection in those provinces in which the proportions of the tasks assigned to the different classes do not clearly follow the proportions of the wage. The extra work demanded from those in the higher classes in consideration of but a small increase of wage offers an inducement to the able-bodied relief workers to allow themselves to gravitate into class D where they get two-thirds of the full wage for doing very little. This inducement acts strongly when the people are depressed or naturally wanting in energy. It may be added that it also acts strongly when the works are not managed with intelligence and consideration, where the fining seems arbitrary or unintelligible to the

people or where the gangs are so made up that there is no spirit of combination in them and the industrious cannot force or persuade the idle to do their share of the work.

Digger and carrier classification.

194. The code classification and tasks are unworkable for other reasons. Theoretically a task is assigned to each individual, but in practice it is necessary to fix a task for a gang. But in the most common form of relief work, *i.e.*, ordinary earthwork, the outturn of the gang depends on the proportions of two classes which are not recognised in the code classification, *viz.*, diggers and carriers. Some of the codes have task-tables showing the quantity of earthwork that may be exacted from each unit in a gang, with a note that if the constitution of the gang varies much from that assumed in fixing the task the officer in charge may modify the task, but tables drawn up in this way have proved absolutely unworkable. Experience shows that the great mass of relief workers may be most naturally divided into two great classes—the able-bodied men who are able to dig, and the weaker and less expert, including almost all the women and children, who are only able to carry a load on their heads. The task for a gang will therefore be the task for the diggers, and each gang will have a complement of carriers depending on the lead and lift, and the general capacity of the carriers. On earthwork the tasks of these two classes differ not in degree but in kind, and a rational system of classification and tasking must take account of this fact. This has been recognised in the classification introduced in the North-Western Provinces and in the provinces which have adopted the North-Western Provinces rules. It is not quite so appropriate for other forms of relief work in which all are employed on the same kind of work such as the breaking of road metal, but when this is not done by piece-work the classification proposed is as good as any other and answers all requirements, those in the able-bodied class being expected to perform a task 50 per cent. in excess of the task for those who on earthwork would be classed as carriers. The members of two Madras famine conferences, which met at Waltair and Madras to consider this and other questions connected with the employment of relief labour, were opposed to any alteration in the code system of classification, but it seems to us to be the fact that the general objections to the code classification as unworkable apply with special force to Madras, where the whole system of tasking and the relief work accounts are based on the supposition that all the members of one gang should be of one class. In Bombay the gangs included workers of all classes, but in Madras it is the gang, and not the individual, that is classed. This system has a certain advantage in simplicity, but the disadvantages are obvious. A number of men come to the work who may perhaps fairly be classed as A or B. They are accompanied by a number of feeble folk, who may be their own womenkind or not, but are quite incapable of performing an A or B task. However, gangs are formed according to villages and families, and all are put in A or B class as the case may be, and deductions from the full task are then made on account of weakness. Even if all the members of a family actually fall under the definition of a single class, this system must lead to the able-bodied and weak being massed in separate gangs, instead of being mixed in suitable proportions as under the digger and carrier classification. No doubt this is not such a serious disadvantage when all are employed in metal-breaking, but for earthwork it would appear to be the worst disposition of labour possible. The subject of classification of

labour and the whole question of the wage are further considered in chapter VI of this report.

(c) The system of payment by results.

195. In discussing this system, as distinguished from the code task-work system, we shall restrict the term "payment by results" to methods of work which can be included in the two following classes :—

Piece-work not provided for in the codes.

(*a*) Piece-work, when payment is made to a gang of labourers at a prescribed rate on the quantity of work, with or without a maximum limit, but without any reference to the number or classification of the persons composing the gang, or the time spent in performing the task.

(*b*) Task-work, without a minimum limit to the wage, in which a limited daily task is given to a gang, and a daily wage is paid to each member of the gang, depending partly on sex or other classification, and partly on the quantity of work done. Under this system two gangs differently constituted may do exactly the same quantity of work in a day ; but the total amount paid to each would vary according to the numbers of each class in the gang.

'Piece-work has not been provided for in any of the codes, and the reason is not far to seek. The codes have been based on the Government of India Resolution No. $\frac{35}{33}$, dated 24th August 1893, in paragraph 7 of which it is stated that the term "piece-work" as ordinarily used implies not only that work is paid for by results, but also that it is not subject to any other limit than the actual capacity of able-bodied labourers to perform it. The Government of India considered that some such limit was essential in famine relief operations, and to prevent misapprehension on this point directed that "the maximum amount of work allotted to a particular class of relief workers will be described in future as the *task* allotted for the class in question, and the term 'piece-work' will be abandoned. For although payment will be dependent on results in the sense that short work will entail short payment, the Government of India are of opinion that it will be convenient to avoid the use of the term 'piece-work' in connection with any form of labour imposed for purposes of famine relief." It will thus be seen that while the Government of India objected to the use of the term 'piece-work,' as long as this implied the existence of no maximum limit to the amount that might be earned by a relief worker, they did not object to the principle that short work should entail short payment.

196. In most or all of the codes the attempt has been made to provide by cuttings for short work for a modified or imperfect system of payment by results, notably in paragraph 28, appendix VI, Madras code. But all such provisions have been made more or less nugatory under certain conditions by the direction common to all the codes that "as a general rule the effect of fines must not be to reduce the wages below the minimum wage prescribed," and by the further instruction that deductions of pay shall not be made when the shortness of work is due to weakness and not to persistent neglect or idleness. Under all the codes work can no doubt be given out by the piece, subject to a maximum and minimum wage, though the term "piece-work" has been proscribed, but a system of task-work with a minimum wage is only to a very limited extent a system of payment

Payment by results without the restriction of a minimum wage.

by results. One of the striking points in the late famine has been that, in most provinces, a system of pure payment by results has grown up alongside of the code system, not indeed in any case in supersession of it, but as a supplementary system into which relief works officers have felt themselves forced as a means of securing an adequate labour test or an adequate outturn of work. The systems adopted varied from one of ordinary contract with no maximum limit to the amount to be earned, to one that differed only from the code system of task-work in the abolition of any minimum limit to the wage. The principal systems adopted in each province will now be described, after which the advantages and disadvantages of each will be stated as briefly as possible.

Distinction between Famine and Scarcity districts in the North-Western Provinces.

197. In the North-Western Provinces two forms of payment by results were adopted in the recent famine, but the first point to be noted is that neither was introduced into any district in which distress was believed to be intense, or into what have been called "famine" districts. In such districts the code system with a minimum wage for all workers and doles for dependants has been adopted to the complete exclusion of any other. On the other hand in districts less acutely distressed, or so-called "scarcity" districts, payment by results has been adopted to the utter exclusion of the code system. In these scarcity districts some relaxation in the matter of tasks in favour of weak and feeble gangs of workers and doles to dependants was eventually found necessary, but even then the payment depended on the work done, though less work was demanded for the same wage than in the case of fairly able-bodied labourers. In other provinces payment by results systems and the code system have been introduced on different works within the same district, or even side by side on the same work, piece-work for the able-bodied, task-work for the weak and feeble; but in the North-Western Provinces the policy has been to rigidly restrict each system, to the exclusion of the other, to particular districts, according to the intensity of the distress, it being left to the local Government to declare which were "famine," and which were "scarcity" districts.

Modified intermediate system in the North-Western Provinces.

198. The system of payment by results generally followed in the North-Western Provinces was known as the modified intermediate system, and was but a modification of the code system, under which the minimum wage disappeared. Under the code system a task was given to a party or gang of labourers, and if nearly performed, each member of the party received the prescribed daily wage. If the tasks performed were, say, less than 75 per cent. of the full task, each was fined one pice, which brought the pay of the carriers down to the minimum or dependant's wage. In some places the fining appears to have been carried a little further, and if less than 50 per cent. of the task were done, there was a further fine of a pice. But in the intermediate system the fining process was continued still further; if only a quarter task was done, quarter wages were paid, and if nothing was done, nothing was paid. As a set-off against this abolition of a minimum, the workers were allowed an extra pice if the full tasks were exceeded by 25 per cent. but no further excess was permitted. A Sunday wage was not given as under the code system, but the extra amount that could be earned by performing the maximum task during six days of the week was slightly in excess of the amount of the Sunday wage. No dole or allowance was given to adult dependants, but it was found necessary to allow the Collector a discretional power of giving non-working children a ration of cooked food. Measurements were taken and

payments made daily. In the Oudh division a separate task was given to each digger, who, with his carriers, was paid daily. A later development in the Allahabad division was to associate several diggers with their carriers together, and to pay on the total outturn.

Piece-work in the Gorakhpur division.

199. A different system was followed in the Gorakhpur division, which was one of pure piece-work, though with a maximum limit to the earnings. Here each digger was paid at a fixed rate per 100 cubic feet outturned, and associated with himself as many or as few carriers as he pleased, generally members of his own family or village, with whom he divided his earnings. A maximum limit was however imposed to the quantity of work to be done daily, and if this were exceeded, the excess was not paid for.

Payment by results in Bengal.

200. In Bengal also payment by results took the form both of piece-work and of task-work without a minimum wage. The latter was generally carried out under what has been called the Blackwood system. In this a gang had to dig a pit of a given area to a given depth, the cubic contents constituting a day's task. Payment was not made to the gang until the work had been completed to the required depth. Thus, if a day's task were not completed in the first day, no payment would be made on account of that day. If completed on the second day, it would then be paid for, any work done in excess or as part of a second daily task remaining unpaid for until that task was finished. If a party took six days over a daily task, they would get one day's pay on completion, and so were paid strictly in accordance with results. True piece-work, without any maximum limit to the amount that could be earned, was also carried out on a considerable scale by the Public Works Department in Behar. The two most notable examples were on the Sakri-Jainagar Railway and the Tribeni Canal in the Darbhanga and Champaran districts, respectively. In the former, work was given out to large gangs, of which the normal strength was 150 workers, and payment was made to the mate or head of the gang at the prescribed rate per 1,000 cubic feet for work done, without any maximum limit. Payments were made to the headman in the presence of the gang, the rate paid per *dhur* or local unit of volume (100 cubic feet) being well-known, and distribution between the component members of the gang being effected accordingly by themselves. Great care was taken in the setting out and organization of the work, so that each working party in a gang should know what was due to it, but the officer in charge had no concern in the distribution of the amounts paid to headmen except in cases of complaint. The daily returns showed the number of men, women and children employed, but nominal muster rolls were not maintained, and the payments made depended only on the quantities of work done, and were absolutely independent of the numbers of workers employed. A few workers were entertained as daily labourers, but this appears to have been the case only when work was required which could not be given out by the piece, and there was no regular supplementary system of task-work for any that might be unable to earn a subsistence wage at piece-work.

Piece-work on the Tribeni Canal.

201. On the Tribeni Canal, work was carried out on the small or family gang system. It was set out in such a way that a single digger with his complement of carriers could have his work separately measured up and paid for daily, though two or

more diggers might associate themselves together so as to form a single gang. The difficulty of providing for weak persons unable to earn a subsistence wage at the rates offered or to obtain admission into the ordinary gangs was here successfully met, not by a supplementary system of task-work on code principles, but by forming special gangs for people of this class, to which higher and more favourable rates were paid. These gangs were kept under special observation, and as the strength and capacity of the workers improved, they were transferred to the ordinary gangs. In the month of July as many as 5,000 persons were drafted from the gratuitous relief lists to these special gangs where they were able, although paid by the piece, to earn a subsistence wage on the liberal rates offered, and were finally absorbed into the ordinary gangs.

Other piece-work in Bengal.

202. Although piece-work had a more extended trial in Bengal than in any other province, it was not introduced in Behar at the outset of the famine or until the month of May, and the number of piece-workers in Behar did not exceed 3 per cent. of the whole number of workers. In Champaran the proportion was 7 per cent. But during the last three or four months that relief works were open, tasks were so rigorously enforced even where the Blackwood system had not been introduced, that payment everywhere depended very closely on results. Outside Behar, piece-work, without a maximum limit to the earnings, was carried out in the Bhagalpur and Chota Nagpur divisions and also in the Puri district of the Orissa division, and the local officers were practically unanimous in the opinion that it was the system best suited to the conditions obtaining in the districts in which it was applied, though in none of them except some districts of the Chota Nagpur division was distress very severe. In the last named division a difficulty was experienced in working the system owing to the number of women and children on the works, whose husbands or able-bodied male relations had emigrated in search of work to Assam or other distant places. This was met by the formation of weakly gangs to whom light or nominal work was given. Dependants not capable of work were also put, nevertheless, in these gangs, or were given gratuitous relief, ordinarily at kitchens. It was tried also in the Presidency division, but was considered less satisfactory than task-work ; the operations under both systems were, however, on a very small scale. In the Palamau district of the Chota Nagpur division piece-work appears to have been carried out by the agency of the district board contractors, who paid the labourers at a prescribed rate per 1,000 cubic feet, and received a rate 12½ per cent. higher in consideration of their services in organizing and paying the labourers. The district engineer measured the work and paid the contractors once a fortnight, and satisfied himself that the labourers had been duly and fully paid. Operations in this district were, however, on a small scale, the number of relief workers never exceeding 6,000.

Payment by results in the Central Provinces.

203. In the Central Provinces relief works were conducted on the code task-work system, as modified by the North-Western Provinces resolution No. 18-P. W., dated 5th December 1896, until the month of June, when it was decided for reasons explained in the first part of this chapter to introduce piece-work alongside of the code system. It was directed that whenever piece-work was introduced, provision should be made for employing infirm gangs, the members of which would be unable to earn a subsistence on piece-work, upon task-work with a minimum wage, and that on works, where the number of infirm workers exceeded 25 per cent. of the total

number employed, the code system already in force should not be altered. Piece-work was gradually introduced under these conditions, at low rates but without any maximum limit to the earnings. In some districts, and particularly in the Chhattisgarh division, contractors were employed on much the same system as already described for the Palamau district in Bengal, though the contractor appears to have been paid as commission 25 or even 50 per cent. of the amount paid to the workers, but to have provided all necessary establishment. In other cases, as in the Jabalpur division, piece-work was conducted on the gang system without the intervention of contractors. The system of unlimited piece-work, with task-work alongside for the infirm, did not have a very long or conclusive trial. Its introduction in the month of June was partial and gradual only, and in some cases the civil officers objected to its introduction, or thought it necessary to revert to task-work. It was also found that the piece-workers commonly failed to properly support their children and dependants. In the month of August revised orders were issued by the Chief Commissioner with the object of meeting the objections to the piece-work system, and of also making the work less attractive to able-bodied labourers and inducing them to return to their fields. In these orders it was directed that the weak and infirm labourers should continue on task-work at the D or minimum wage, but that all able-bodied labourers should be put on piece-work with the same wage as a maximum. In other words, the infirm were to be given the D wage without reference to the work performed by them, but the able-bodied, while prohibited from earning a higher wage, were to be paid this wage only on condition of completing a moderate task (which does not appear to have been very precisely defined), and were to be paid in strict proportion to any deficiency in the work outturned. On the other hand the children and dependants of the piece-workers were to receive the same allowances as those of the task-workers. These orders were not however accepted in all districts, and in others they were in force only for a short time.

Piece-work in Bombay.

204. In the Bombay presidency piece-work was introduced tentatively and to a small extent in some districts, but the results have not been as carefully scrutinized as in Bengal, and the opinions on its effectiveness laid before us were based more on abstract reasoning than on actual experience of the results obtained as compared with those under the code system of task-work. In all cases in which the trial was made, the principle of a maximum limit to the earnings was acted on, but it was considered that this limit should exceed the maximum wage of the code by a margin sufficient to cover the Sunday wage and the maintenance of all dependants. In the Sholapur district the task was limited to the A task of the code, and the rate fixed was such as to give the A wage for a full task, plus a small percentage on account of Sunday wage and dependants. In the Southern division the rate was fixed so as to give a trifle over the A wage when a full A task was performed, and the Sunday wage was provided for in fixing the maximum task for which payment could be made in a week, by allowing the workers to earn in that time seven days' wages by doing seven days' task.

Piece-work in the Punjab.

205. In the Punjab, a fair outturn of work was generally secured under the code task-work system, or that system modified by paying only the full wage or the minimum, all intermediate proportional fining being abandoned. For this and other reasons piece-work was introduced only shortly before the close of operations, either

by way of experiment as on the Jhelum Canal, or as in the Karnal district to meet the case of castes like the Rangars, whose women were prevented by custom from appearing on relief works. In Karnal piece-work was given to the Rangars while other workers were on task-work, and it is said that the two systems were worked together satisfactorily side by side, though the operations were on too small a scale for reliable conclusions to be drawn from them. On the Jhelum Canal it was found that double the work before obtained was performed under piece-work conditions, but as this was at the close of the operations some of the conditions may have been different.

Piece-work in Madras.

206. In Madras, as already stated, the principle of payment by results was practically given up at an early stage in the operations, although very distinctly provided for in the appendix to the provincial code. Even in Madras, however, piece-work was recommended by the local officers in Ganjam, not as a means of enforcing a more rigorous labour-test, but as more suited to and popular with the able-bodied labourers in that district who considered attendance at ordinary famine task works degrading, but were willing to take piece-work. Its introduction in these districts was sanctioned by the local Government in the month of July, but it is said that "the task-work system had by that time been universally introduced, and as its principles were understood, it was considered undesirable to make a general change, especially as distress was then severe, and the piece-work system seemed more suited for the earlier stages of distress." The piece-work system therefore had but little trial.

Piece-work in Burma.

207. In Burma relief works were conducted during the distress of 1892 on the piece-work system, but during the late famine true piece-work was not introduced, except tentatively on the Mandalay Canal as operations were drawing to a close, when it had not a fair trial. The code system of task-work was followed, but it seems to have been virtually changed into a system of payment by results, for although high wages were paid, deductions for short work are said to have been rigorously made without restriction to a minimum wage, except in case of obvious weakness. Deductions, however, were not common, as the people are energetic, and formed themselves into village gangs, the village headman becoming responsible for the full rate of work being done. Under these circumstances the cost of the work done compared favourably with ordinary rates. It should be remarked however that the works were concentrated, the numbers were not large, and a very strong supervising establishment was available.

208. We may now proceed to consider the merits and disadvantages of the various systems of payment by results that have been described.

(A). The modified intermediate system of the North-Western Provinces, excluding the form of it adopted in the Gorakhpur division.

Advantages and disadvantages of the modified intermediate system of the North-Western Provinces.

The great advantage of this system is that it is but a development of the code system of task-work, as practised in the North-Western Provinces. The same form and methods of classification, tasking, and setting-out work are adopted and the difference between the two systems is one entirely of degree and not of kind. The intermediate system is stricter in its working and less liberal than the code system, but a change from one to the other can be made in a day.

On the other hand, it is necessarily open to all the objections to the code system except that which may be taken to a minimum limit to the wage. It involves the maintenance of a nominal roll of all workers and their dependants, in addition to a daily record of tasks, with all the opportunities for fraud and peculation incidental to a system of daily wages modified by fines. Like the code system it limits the earnings of all workers to a bare subsistence allowance for themselves, for the extra wage that may be earned by the performance of a maximum task provides little more than a subsistence for the weekly rest day, and leaves nothing for the support of non-working dependants, who must either be supported out of other resources or be given gratuitous relief. In the form adopted in Oudh it is singularly inelastic and requires a large establishment to be properly worked, though these objections do not apply to the larger gang system eventually followed in the Allahabad division. Lastly, like the task-work system, it encourages the accession to the works of all the weaker members of the family, and an excessive number of carriers. The earnings of a gang no doubt vary with the quantity of work done, but in practice the labour-test applies only to the digger. The number of carriers in a gang is not restricted to what is normally required for the work to be done, and, according to the evidence before us, is generally 50 and sometimes 100 per cent. in excess. The greater the number of carriers the less is the task required of them, but each is nevertheless allowed the higher wage that may be given when the maximum task is performed, or the full wage for an ordinary task.

Limited piece-work in Gorakhpur.

209. (B). The piece-work system adopted in Gorakhpur is not open to all these objections. Payments depend solely upon the quantity of work done, and are independent of muster-rolls or the exact constitution of the working party. The people make up their own working parties according to requirements, adults taking the place of children, or men the place of women, and there is no encouragement to carriers to come in excess. The daily outturn of work is measured as carefully and systematically as under the task-work system, so that there is little difficulty in reverting from one to the other if circumstances so require. The distribution of earnings rests with the digger, and not with the works moharrir as in task-work; and as in task-work, the ability of the more able-bodied to earn enough for the support of their dependants is limited by the operation of the maximum limit to the task or earnings.

The Blackwood system in Behar.

210. (C). The Blackwood system is a third variation in the method of payment by results, under which earnings are limited to the code wage. If no restriction be made on the proportion of carriers to diggers, it differs only from the intermediate system of the North-Western Provinces in that payment is made when a task is finished, instead of daily, and that no extra wage can be earned by the performance of a maximum task. In Bengal, however, the proportion of carriers to diggers was carefully adjusted, though there were variations in the numbers attending from day to day which tended to complicate this system. Mr. Blackwood, indeed, in his evidence before us, stated that in his own practice he often made payments without reference to the number of carriers actually employed from day to day. The amount to be paid for each task depended on the number of diggers and carriers prescribed by the task tables in force, and it was optional with the diggers to bring more or less carriers as they

liked. If worked in this way, the system would be true piece-work with a maximum limit, differing only from the Gorakhpur system in that payment would be made after completion of a set task, and not upon daily measurements. As a general rule, however, when this system was employed the carriers were paid according to the numbers on the muster-rolls. The system had many practical advantages when applied to task-work in Bengal, but it really differs only in minor points of detail from the code system of task-work with no minimum, or from the Gorakhpur system of piece-work with a maximum limit to the earnings, accordingly as the amount paid for a daily task is fixed with reference to the actual or normal number of diggers and carriers required.

Unlimited piece-work.

211. (D). The piece-work systems adopted on the Sakri-Jainagar Railway and the Tribeni Canal in Bengal are the chief examples of unrestricted piece-work, in which no maximum limit was fixed to the wage. They differ from each other only in the fact that on the former work was given out to large gangs and on the latter to families. The gang system involves much less labour for the supervising staff, and has great advantages among people who are used to working in combination in this way, but the family system will probably be more generally suitable for relief works, though there may be many intermediate stages between large gangs containing 150 labourers on the railway, and the small ones, often consisting of only three members, on the canal. The essential feature of each was that no limit was imposed to the earnings, while on the other hand there was no minimum wage, and nothing was allowed either for a weekly rest-day or for dependants. The advantages claimed for such a system over one of limited piece-work are that it enables the stronger members of a family to earn enough for the support of themselves and the weaker members, who can thus remain in their villages, that the numbers on the works are greatly reduced, and consist mainly of real workers only, among whom a high state of discipline can be maintained, and that workers are free to return to their homes as required, supporting themselves on the savings from their earnings while on the works. It is urged that the amount earned can be sufficiently controlled by careful attention to the working rates, and that even those who have no dependants to support may be trusted not to trouble themselves to earn more than is needed for their own subsistence, and to leave the works whenever they get any money in hand. On the other hand, it is objected that if rates are adjusted to the capacities of the ordinary able-bodied relief workers they will be unduly attractive to professional labourers, and will not ensure a subsistence allowance to the weaker classes of labourers; that it is the object of relief works to provide a bare subsistence for all, but no more than this for any; and that there can be no security that the amount earned by the able bodied in excess of their own actual personal requirements will be spent on the maintenance of their dependants, or will result in a reduction of anything like the same amount in the expenditure that would otherwise be incurred in gratuitous relief. The difficulty of keeping out of the lists of the recipients of village gratuitous relief the dependants of those who are earning enough for their support on works many miles away is often insisted on; and, lastly, it is contended that, by withdrawing all limit to the quantity of work that may be done by individuals, there is great danger of exhausting the work available for relief purposes. These objections all have considerable force under certain conditions. As regards the difficulty that infirm workers may find in

earning a subsistence at fair piece work rates, it is generally recognised that wherever there is payment by results some provision must be made for infirm workers. This may be done by giving them a daily wage under the code system, or by giving infirm gangs piece-work at special and favourable rates. As in every other system of payment by results, the proportion of workers admitted to privileged rates or to a minimum wage must, of course, be carefully watched, and if it should ever be excessive, payment by results must be given up and the code system reverted to. As regards professionals, there is little difficulty in distinguishing them, and, if need be, in restricting their earnings, either by distributing them among the ordinary gangs, where their presence may be very useful, or by reducing their rates. It must be admitted that unrestricted piece-work is the most appropriate form of relief among those castes whose women will not appear on the works, and among others the effect of piece-work is to increase the proportion of men on the works, who take the place of women and children left at home. It has been found, too, that the wages earned when there is no limit have not greatly exceeded those payable under the task-work system, when allowance is made for the Sunday wage and the relief of dependants under the latter system. As to the danger of exhausting the work, it is not necessarily the case that the daily outturn of work will be greater under unrestricted piece-work than under task-work. The outturn of work per individual will be greater, but if the workers support others at home, who would otherwise come to the works, the number of individuals will be less, and this will affect the total outturn. On the whole, however, it may be admitted that the effect of removing the limit to individual effort will be generally to increase the total outturn, and that this is a disadvantage to unrestricted piece-work when there is a scarcity of work suitable for relief labourers. It must also be admitted that the system does not fit in well with a free administration of village gratuitous relief, and is probably on that account not adapted to famine of a severe kind.

The objections to unrestricted piece-work were fully realized by the Government of Bengal when a trial of the system was sanctioned in its resolution No. 181-T.R., dated 6th May 1897. The Collector of Champaran, where the trial was carried out on the largest scale, has said in a statement laid before us;—"In the forefront of all reforms I beg to recommend strongly the general introduction of piece-work, with a gradation of rates, keeping the works or sections to which each rate is applicable as far as possible quite separate." Unrestricted piece-work has also been tried in most of the other distressed districts in Bengal and has been favourably reported on by most of the local officers, except in the Presidency division, where it was tried on a very small scale. The Government of Bengal, after a review of the experience gained, has definitely recommended the system of unrestricted piece-work, pure and simple, in preference to the Blackwood system, in which a maximum limit to the task is imposed. The precautions to be taken have been fully recognised, and subject to these precautions we think that the system of unrestricted piece-work may be regarded as so peculiarly suitable to certain conditions in this province as to justify a place being found for it in any revision of the code.

The Bombay system of limited piece-work.

212. (E). In the Bombay system of piece-work a maximum limit to the earnings of a piece-worker is imposed, but the limit is placed considerably higher than the full code wage admissible under task-work so as to make allowance for the cost of dependants

and the rest-day wage. If unrestricted piece-work be accepted on the one hand, and the Blackwood system on the other, as permissible forms of payment by results, there can be no objection to the Bombay system, which is intermediate between the two.

Work under contractors.

213. (F). Work under contractors differs from unrestricted piece-work in that the work is given out to regular or professional contractors, and not directly to the relief workers or headmen of the working gangs. This system was practised chiefly in the Central Provinces where, as already explained, it had but a short and not a very full trial. It is commended by several of the Public Works officers, but the opinions of the civil officers are divided, and on the whole adverse. It is true that the Commissioner of the Chhattisgarh division, where the system was most widely introduced, has remarked that it proved most successful, and that in his opinion it is, when combined with task-work for the weak and kitchens for dependants, on the whole the most satisfactory form of relief work of which he has had experience, and worthy of general adoption in any future famine. Mr. H. M. Laurie, Deputy Commissioner of Raipur, remarks : "I should like to see Public Works Department work conducted entirely on the piece-work system (with infirm gangs) according to Mr. Penny's rules." Though both these remarks imply that the contract system in the Chhattisgarh division worked satisfactorily, they may perhaps be regarded as referring more particularly to the combination of piece-work with provision for infirm gangs, rather than to the superiority of this system over all other forms of piece-work. On the other hand, the Deputy Commissioners of Hoshangabad and Chhindwara, and the Extra Assistant Commissioner, Harda, in the Hoshangabad district, all condemn the contract system as a failure which led to great abuses, though the first and last of these officers declare that gang piece-work, worked departmentally, was a success, against which nothing could be said. In Chhindwara departmental piece-work was only tried for a week, but the Deputy Commissioner (Mr. Ryves) considered from that short experiment that it was too advanced for the Gonds, who constituted the majority of the workers where it was applied. The Commissioner of the Nerbudda division (Mr. L. K. Laurie) is also of opinion that there should be no piece-work in the plateau districts, as the aboriginals are afraid of a system that they cannot understand, though they give an excellent outturn as task-workers. No other officers have referred directly to the employment of contractors, though some form of departmental piece-work, or payment by results, is approved by almost all, provided task-work with a minimum wage is available for weak or infirm workers. The principal argument in favour of the employment of contractors is that, owing to the want of properly trained establishment, it was only by their means that the great and sudden rushes of labour could be met and properly organized. It is also urged that, as they are interested in the outturn of the work, they will do their best to deal fairly with the labourers and to keep them together as long as possible, while the existence alongside of task-work for the infirm meets the objection that weak labourers cannot earn a subsistence under contractors. This may be true in a few cases where well-known and reliable contractors can be employed under adequate supervision, but apart from the many obvious and grave objections to the indiscriminate employment of contractors over large areas, the cost of this method is a most serious objection. The contractor's commission is said to have varied from 25 to 50 per cent. of the amount paid to the workers. This,

no doubt, covered the cost of a certain amount of petty establishment employed by the contractors, but other establishment was nevertheless necessary to measure up the contractor's work, and to see that the workers had been properly paid, and the great cost of this system is in itself a sufficient objection to its general introduction on relief works. The employment of petty contractors in the Palamau district in Bengal has already been referred to. These operations were on a small scale, there was no Public Works Department, works were scattered over a large area, the contractors were men who were in the habit of working for the district board, and their commission amounted to 12½ per cent. only. Under such conditions a case for the employment of contractors may possibly have existed. The code prohibition against the employment of contractors appears to us, however, to be right. We think that the employment of contractors, as distinguished from the headmen of piece-work gangs which should never comprise more than 200 workers as a maximum, should not be contemplated in the codes, and should be allowed only under the special order of the local Government, to be given only when for the time it does not seem possible to organize the works on any other system.

Later system of payment by results in the Central Provinces.

214. (G). There remains the system of payment by results introduced in some districts of the Central Provinces in August 1897. This was really a reversion to the task system of the code, except that for an able-bodied labourer, not only was the minimum wage abolished, but the maximum wage was restricted to the wage of class D, or the present code minimum. This system was introduced, rightly or wrongly, with the special object of driving the able-bodied from the works to their fields, but it can never be adopted as part of an ordinary scheme of relief operations.

General conclusion as to payment by results.

215. The general conclusion to be derived from this review of the departures from the prescriptions of the codes as regards piece-work is that most provinces have found it necessary at one time or another during the relief operations to adopt some system or other of payment by results, as supplementary to the code system of tasking with a minimum wage. We think therefore that though none of these systems seem suitable for cases of acute distress or actual famine, yet provision should be made in the revised provincial codes for power to use one or more of systems (A) to (E) described above, as may be deemed most suitable for the province. We consider, however, that in every case it should be a condition that adequate provision is made either by task-work subject to a minimum wage, or by piece-work at specially favourable rates, for those who, though capable of performing a light task, are unable to earn a reasonable subsistence allowance when payment is made on the ordinary scale strictly by results. Without such a safeguard, we do not think that the system of payment by results is suitable for relief works at any stage of scarcity or famine. We also think that whenever any of these systems are used, it will be necessary to watch very closely the condition of the workers' dependants. As soon as there is reason to believe that the workers are failing to properly support them, separate allowances or food in kitchens should be provided for the dependants, and either the workers should be put on task work, or the piece-work rates should be reduced to the scale of task-work wages.

(*d*) *Treatment of dependants.*

Prescriptions of the North-Western Provinces code relating to dependants.

216. Section 99 of the North-Western Provinces famine code prescribes that "the infirm dependants of relief workers and children who are unfit to work shall either be fed in kitchens, or allowances on their account shall be paid to the members of their families who are actually employed on relief works." It provides that adult dependants shall be allowed the minimum wage prescribed in section 105, that is, the D wage of the code—28 ounces for a man and 26 ounces for a woman. Nothing is said in this section as to the children's wage, but in appendix E-(2) the grain equivalent is given as 10 ounces for a non-working child under seven.

Deviations from the above that occurred in practice.

217. The grain wage of adult dependants was modified by the rules issued with North-Western Provinces resolution No. 18-P. W., dated 5th December 1896, and reduced to 24 ounces for a man and 20 ounces for a woman. This reduced wage has since been called the minimum wage or the dependants' wage, and is the wage given on Sundays, or wherever a minimum wage is prescribed in the code. This reduction in the minimum wage has already been referred to in paragraph 185. When cash-doles were paid on account of non-working children, they were based on a grain equivalent of 6 ounces, instead of the 10 ounces prescribed in appendix E-(2) of the code. The practical effect under the system of pice wages and the North-Western Provinces conversion rule is that the dole for a non-working child has been restricted to one pice for each wage basis actually in force, as two pice are not allowed by the ready-reckoner until the wage basis becomes fourteen pounds to the rupee. The Lieutenant-Governor has on a reference made to him admitted that this is too little and proposes to modify the revised code so as to allow a second pice whenever the grain rate is twenty pounds or less to the rupee. The alternative permitted by section 99 was followed at a later stage at the discretion of the Commissioner, and non-working children were fed in the kitchens, receiving 6 ounces of dal and rice, with a little ghee. It was found that this cost nearly 2 pice. The practice was not, however, universal. Thus cooked food was given in the Lucknow district, where the modified intermediate system was in force, but in the Hardoi district, where the code system was in force, the cash-dole was given to non-working children. Adults always received the cash-dole, and one pice was allowed to the mother of an infant in arms, whatever the grain rate.

Dependants in Bengal.

218. Section 84 of the Bengal code, relating to dependants, differs only from section 99 of the North-Western Provinces code in that it contemplates two classes of dependent children, those over and those under 8 years of age. For the former one-half and for the latter one quarter of the minimum wage for male adults are allowed, or 14 and 7 ounces, respectively. When Bengal adopted, with modifications, the rules which had been introduced in the North-Western Provinces the dependants' wages were reduced to the following:—

Male adults	24 ounces.
Female adults	20 „
Non-working children under 10	8 „
Infants in arms	one pice.

Kitchens were seldom opened on the works in Bengal and dependants were almost invariably relieved by doles in cash.

Dependants in the Central Provinces.

219. In the Central Provinces the prescriptions of the code regarding adult dependants were the same as in the North-Western Provinces and Bengal, but no special rules were laid down for children, except that the allowance should not be less than one quarter or more than three quarters of that for the adult male; on the adoption of the North-Western Provinces rules the allowances for dependants were reduced to the scale prescribed by those rules, when they were not relieved in kitchens.

Dependants in Bombay.

220. Section 124 of the Bombay code provides that whenever practicable non-working children (*i.e.*, under 7 years of age) and adult dependants shall be relieved by the distribution of cooked food. Appendix V, however, gives a grain equivalent of 10 ounces for non-working children. The dole for an adult dependant when paid in cash is not stated, but in section 107 the poor-house ration is defined as the minimum ration on which the D wage is based, so that adult dependants would get the D wage. Wages were paid in accordance with the code, but eventually children were relieved in the kitchens, receiving 6 ounces of flour and other items as given in the last column of the table in section 106. Adult dependants were usually relieved by cash-doles, receiving the full D wage.

Dependants in Madras.

221. Section 122 of the Madras code prescribes a ration for adult persons receiving gratuitous relief, of which the grain item is 20 ounces. This ration corresponds to a grain equivalent wage of 35 ounces against 28 ounces allowed for a male in class D. If paid in cash, however, the amount of the dole was to be that sufficient to purchase the latter ration, that is, 28 ounces of grain. The more liberal ration prescribed for a person receiving gratuitous relief in section 122 as compared with the minimum wage for workers was due to an oversight in drafting this section, and it has since been altered. It has not been the practice in Madras to relieve dependants by cash-doles, and throughout the famine they received cooked food in the kitchens, the adults at first receiving the ration prescribed in section 122, and the children, on the average, half that amount. Subsequently these rations were reduced when section 122 was amended, and brought to the level of the minimum ration prescribed in section 120. Owing to the fact that cash-doles were not given, the proportion of dependants to workers was much lower in Madras than elsewhere, as parents of the higher castes would not send their childern to the kitchens.

Dependants in the Punjab.

222. In the Punjab adult dependants are entitled to the minimum or D wage under section 140-A and children under section 171 to one quarter of the wage of the adult male, *i.e.*, to 7 ounces. They were relieved sometimes by cash and sometimes in kitchens but the prescriptions of the code do not appear to have been departed from.

Dependants in Burma.

223. In Burma the provincial code prescribed 6 *pies* as the allowance for adult dependants, irrespective of the grain rate, 3 *pies* being allowed for minors over 14 years of age, and 2 *pies* for all children under that age. This scale was found to be insufficient, and an allowance of 6 *pies* was made to all dependants other than children in arms, for whom 3 *pies* were allowed.

Summary regarding treatment of dependants.

224. Generally speaking, the wages or rations of dependants were reduced below what is contemplated in the code in the North-Western Provinces, Bengal and the Central Provinces, but not in other provinces, though the rations prescribed in section 122, Madras code, were reduced by order of the Government of India in the month of July. In Burma they were slightly increased. In all provinces the dependants consisted almost entirely of children, the proportion of adults seldom amounting to more than 5 per cent. In Madras all dependants received grain-doles or cooked food, and cash allowances were unknown. In Burma the allowances were invariably paid in cash, and this was also generally the case in Bengal. In other provinces cash allowances were given in the earlier stages of famine, but experience in all pointed to the desirability of substituting rations of cooked food for a cash wage, and kitchens were generally established on all works on which the number of dependants was considerable.

(*e*) *The relations of Civil and Public Works officers in connection with the management of relief works.*

Recommendations of the Famine Commissioners.

225. The position and responsibilities of the officers of the Public Works Department with reference to relief works have not been very clearly defined in the provincial codes, and there have been considerable variations in the practice actually followed in different provinces. The recommendations of the Famine Commissioners on the subject are contained in paragraphs 129 and 130 of their report which are quoted below:—

"129. The immediate direction of these works should be entrusted to the officers of the Public Works Department, whose special training best qualifies them for such a duty, and who would be responsible for enforcing discipline and directing the labour. It is to be clearly understood by these officers that their duty is not, as in ordinary times, to get the greatest quantity of work done at the cheapest rate, but to give effectual relief to the labouring population inasmuch as the work is undertaken, not for its own sake, but for the sake of the people employed on it. Labourers of all kinds and of all degrees of working capacity and working power should be received on these works if they apply for admission, and Civil Officers should be appointed to co-operate with the Public Works Officers in classifying the labourers and seeing that they are properly paid and tasked according to their strength.

The other duties of the Civil District Officers will be so numerous and important that it is not expedient that the ordinary relief works should be carried on by them, unless in the case of the Public Works Department being unable to supply officers for that purpose. Work might, however, be carried on under the Civil Officers for the purpose of giving employment to persons who have been in receipt of gratuitous relief, and who, though beginninig to recover from debility, are not yet strong enough to be sent off finally to the regular relief works.

130. The Collector of the District should exercise general supervision over all works, as over all other arrangements for giving relief within his district, and should be responsible to Government for their efficiency. Pending reference to the Government or other superior authority his decision should be accepted by the Public Works Officers in all matters relating to the task and wage of the people employed, as well as in opening or closing works, and generally in everything except arrangements of a merely technical nature."

With these must, however, be read paragraphs 115 to 119. The Commissioners proposed the permanent creation of a special branch of the Secretariat (to be called the Agricultural Department) to have charge, among other subjects, of

the relief and prevention of famine, and through it in time of famine all orders of the local Government relating to famine administration were to issue. They also proposed, in the event of a serious famine, to concentrate the control of the various branches of the administration concerned in famine relief under a Famine Commissioner, in whom should be centred the responsibility for directing all branches of famine relief under the immediate control of the head of the local Government, and in close connection with its Agricultural Department. The orders of Government on all relief measures were to issue in his name, and the officers of the Public Works Department placed in charge of relief works and officers of all other departments concerned in famine relief were, if unfit, to be removed by the local Government on his demand. It appears in short to have been intended that the ordinary heads of all departments should be more or less set aside in respect of famine work, not only in the Public Works Department, but also as regards the Board of Revenue or Financial Commissioner, the Inspector General of Civil Hospitals, and the like.

Reasons why full effect has not been given to these recommendations.

226. The reasons why the Agricultural Department was not constituted on the lines proposed by the Famine Commissioners, and why no provision was made in the provisional code for the appointment of a Famine Commissioner, are explained in paragraph 8 of the resolution of 9th June 1883 and in paragraph 9 of the despatch of the Government of India to the Secretary of State of 2nd October 1883. In the latter the Government of India say that they recognise that a Famine Commissioner may be wanted in famines of very great magnitude or severity, but as they do not think such an appointment will be ordinarily necessary, they have preferred to make no provision for it in the provisional code. On referring to that code, we find that the idea of a Famine Commissioner controlling officers of all departments engaged in famine relief is replaced in it by a system under which the administrative control of all measures of relief would rest with the Commissioners and Collectors (see sections 24 and 26) subject to some not very clearly defined exception in the case of relief works under professional agency. Section 64 declares that such works were to be conducted under the direct control of the Public Works Department, but the only specified duties of the Chief Engineer, or Head of the Department, are those stated in sections 65 and 68, which relate to the preparation and maintenance of programmes of relief works, and to the decision as to the works to be undertaken when relief is necessary, in respect of both of which matters the Chief Engineer will act in communication with the Commissioner, and in sections 69 and 70 which relate merely to the provision of funds, tools and plant. The idea prevailing in this code was that in professional agency works able-bodied and *quasi*-professional labour would alone as a rule be employed, the works being conducted like ordinary works under the direct control of the Public Works Department; but sections 73 and 74 authorise the Commissioner to make special arrangements for separating persons not accustomed to labour or not able-bodied, and arranging either that they should be employed under the Public Works officers on special terms, or else that they should be placed under a civil officer or transferred to civil agency works

Duties of Public Works officers as defined in the code of the North-Western Provinces.

227. In the Government of India's resolution No. 35—33, dated 24th August 1893, it was assumed that professional agency in some form or other would be available for the supervision of nearly all works which would be useful for purposes of

famine relief, and would be exercised either by the engineering staff of the local boards or by officers of the Public Works Department. In all the provincial codes based on this resolution the definition of the powers and responsibilities of the Collector or District Officer contained in paragraph 130 of the Famine Commission's report has been inserted almost *verbatim*, but in very few of them have the position and responsibilities of the officers of the Public Works Department been clearly or completely defined, except in regard to such matters as budget provision for the works to be undertaken, the supply of tools, and the like. Taking first the North-Western Provinces code, its section 29, following the provisional code, provides that the Commissioner shall exercise administrative control over all measures undertaken for the relief of famine in his division, except so far as provided in such portion of chapter VI as relates to the conduct of large works. Section 64 in chapter VI provides that the supervision exercised in either large or small works will, as far as possible, be professional, but this does not necessarily imply departmental control, nor is it clear to what specific provisions in this chapter the exception in section 29 refers. The duties of the Chief Engineer or administrative head of the Public Works Department, as defined in sections 31 to 36, do not include the general direction of operations on relief works; the Superintending Engineer, to whom all executive officers in the Public Works Department are immediately subordinate, is not mentioned in the code, while the reports and returns required from an engineer in charge of a relief work under sections 37 to 40 are to be submitted to the Collector only. The responsibility of the Public Works Department, as a department, for the immediate direction of all relief works not specially reserved by the civil officers "for the purpose of giving employment to persons who have been in receipt of gratuitous relief," is nowhere asserted in the code.

Actual practice in the North-Western Provinces.

228. Whatever the provisions of the code in this respect, the Government of the North-Western Provinces in practice placed almost all relief works under the immediate direction of the Public Works Department. But the head of the department acted in concert with the Famine Secretary to the local Government, and the entire famine relief operations were controlled in all details by the Lieutenant-Governor, who may be said to have discharged in person the duties of a Famine Commissioner for the distressed districts, in addition to his ordinary work. In this way the principle underlying the recommendations of the Famine Commission that famine relief is all its branches should be controlled by a single head was fully preserved, and to its preservation may be attributed the unison of effort and absence of departmental friction which characterised the famine administration of the North-Western Provinces. It must, however, be remembered that it is not every head of a local Government who has the famine experience, the strong controlling power, and the working strength required for the successful performance of such an additional task. The system adopted was also suggested by the nature of the agency for public works. In these provinces the professional agents in the employment of local boards, to whom reference is made in the resolution of August 1893, did not exist outside the ranks of the Public Works Department. The district engineers or surveyors are all assistant engineers and upper subordinates of the department, working under the departmental organization. They are subordinate to the divisional or executive engineer, whose jurisdiction extends over several districts and is conterminous with the civil division. These are again responsible to the Superintending

Engineer, whose charges comprise two or more civil divisions. This organization ready to hand, though at first inadequate in strength, was in form admirably adapted for assuming the immediate direction of all relief works, except the small village works undertaken by the Collectors under section 65 (*a*). And from the first, although the position of the Collector, as defined in paragraph 130 of the Famine Commissioners' report, was fully asserted in section 27 of the provincial code, the department was responsible for all details of management. Rules and orders for the guidance of all officers employed on relief works were drawn up in the Public Works Department, and issued under the North-Western Provinces resolution No. 18-P. W., dated 5th December 1896. Other orders relating to the management of works were issued from time to time, as required, by the local Government in the Public Works Department. At the commencement of operations a Public Works officer, Mr. Palmer, was placed on special duty, and was appointed to advise, in pursuance of the instructions of Government, Commissioners and Superintending Engineers as to the system Government desired to be followed, so that a general system of control and working should be maintained throughout the various divisions, both in works under the Commissioner and under the Superintending Engineer. Subsequently as operations expanded, the third public works circle was divided into two, the larger and more important of which, as regards relief operations, was placed under Mr. Palmer. The Superintending Engineers, in free and constant communication with the Commissioners and Collectors, issued all subsidiary instructions necessary in regard to the tasks, payments, kitchens, sanitary arrangements, and the like. The officers in residential charge of the works, who were employed in classifying the labourers and seeing that they were properly paid and tasked according to their strength, were, as a rule, nominated and appointed to famine duty by the civil department, but they were posted and transferred by the Superintending Engineer, and were subordinate to the divisional and district engineers. The works were too numerous to be directly under the charge of Public Works officers or subordinates, who usually had several works under them which they inspected in turn, the duties of the resident or civil officer in charge being as defined in section 77 of the code.

Duties of Public Works officers as defined in the Bengal code.

229. In the Bengal code the immediate direction of all relief works by the Public Works Department is contemplated even to a less extent than in the North-Western Provinces code. Section 52 (4) prescribes, like section 64 of the North-Western Provinces code, that the supervision exercised in either large or small works is, as far as possible, to be professional, but section 54 is to the effect that "by far the greater part of relief works, if not all, will ordinarily be of class (2)"—*i.e.*, works carried out from local funds by the district board (or district officer when a board does not exist) through the district engineer and the staff subordinate to him—"which will chiefly employ unskilled labour, and the works carried out by the Public Works Department will consist only of large projects, such as railways, canals, etc., specially sanctioned, and will employ only able-bodied labourers." Section 59 provides that for every relief work there shall be an officer in charge, appointed by the civil authorities, but that if he is an officer of the Public Works Department, he shall, in his capacity as officer in charge, be subject to the control of the same authorities. The only responsibility assigned to the Superintending Engineer, (section 93), is that of issuing timely instructions for the provision of tools, treasure

chests, etc., and in section 97 he is permitted to order a copy of the returns and reports submitted by the officer in charge of a work to the Collector to be forwarded to himself, in the case of works carried out by the Public Works Department. The responsible management of all relief works by the Public Works Department is not contemplated in the code, nor, as will now be shown, was it possible under the constitution of the Public Works Department at the outbreak of the famine.

Actual practice in Bengal.

230. The conditions in Bengal were diametrically the opposite of those obtaining in the North-Western Provinces. Every district had its own engineer, appointed by the district board, but there was practically no Public Works establishment, except in the Presidency division, and on the large irrigation works. This was the result of the policy introduced some years ago, under which the Public Works establishment was reduced to a minimum, and the district boards entrusted with the construction and maintenance of civil roads and buildings. On the outbreak of the famine, therefore, the only relief works possible were small village works undertaken by the Collectors, with the assistance as professional advisers of the district engineers. But the rush for employment was so great, and the want of large and useful works so marked, that it was found necessary to organize a Public Works establishment in Behar which was entrusted with the preparation of large projects and with the charge of the relief works started on them. Two Superintendents of Works were temporarily appointed, each with three Exècutive Engineers and their subordinate staffs under him. The Collectors made over to these officers some of the small works that had been commenced under civil agency, but there was some difficulty in transferring more, and, as a matter of fact, the number of relief workers employed under departmental agency never exceeded two-sevenths of the total number employed in the districts in which the Public Works divisions were established, though they were for the most part employed on works that required skilled agency for their construction. The Public Works Department had, therefore, very little to do with the immediate direction of relief works even in Behar, and in other parts of Bengal it was not employed at all. In Champaran and Muzaffarpur, two most seriously affected districts, the transfer of the district engineers to the Public Works Department deprived the Collector of all professional assistance for the works under civil agency. All this was perhaps unavoidable under the circumstances, but it involved some waste of money and loss of power. However efficient may have been the latter administration of the works under civil agency, it will not, we think, be denied that the petty establishments at first were not under full control and found openings for peculation. The Collectors and their staffs, inexperienced in such work, had to devote a large amount of time and energy, first to the detection, and afterwards to the prevention of frauds of this kind, and this is a burden which, with a trained Public Works establishment available, should not be put on the civil officers, who, though they must be responsible for the efficiency of relief works as means of relief, should not unnecessarily be concerned with the details of the management. Mr. Bourdillon, the Commissioner of Behar, who controlled the extensive famine operations in that division with great ability and success, in his final report (paragraph 380), has remarked :—

"The Public Works Department were not able to take the field as early as it is hoped they will do in future; but their assistance when it arrived was invaluable, and their example stimulating."

The assistance rendered by the Chief Engineer in organizing an efficient task-work system and in drawing up his admirable task-tables has also been warmly acknowledged, but whatever the value of the assistance rendered by the Public Works Department, it would have been much greater if it could have been made more directly as well as more extensively responsible for the efficient management of the works, and so relieved the civil officers of a mass of details with which it was more competent to deal. It should be added that in Bengal the Revenue Secretary was Famine Secretary, and that the Lieutenant-Governor on occasions practically conferred some of the functions of a Famine Commissioner on the Revenue Secretary by sending him round as an Inspecting Officer.

Duties of Public Works officers in the Central Provinces.

231. The provisions of the Central Provinces code regarding the control and management of relief works are brief. The general scheme is that, save in exceptional circumstances when it is considered expedient to relieve the Deputy Commissioner of responsibility and control in which case the local Government will issue special instructions for the guidance of the official in charge, the responsibility for and control of relief works rest with the Deputy Commissioner subject to the general control of the Commissioner. It rests with the Deputy Commissioner to decide whether the official placed in charge of a relief work shall be an officer of the Revenue or the Public Works Department, and in either case he is ordinarily subordinate to the Deputy Commissioner and to him alone. During the late famine the management of almost all the works was, as in the North-Western Provinces, put directly under the Public Works Department. The establishment was very short-handed, and there are no district engineers under district boards. There are also no Superintending Engineers, though an Executive Engineer was temporarily appointed as a Superintendent of Works in the Chhattisgarh and Nagpur divisions. All general orders regarding the management of the works were issued through the Chief Engineer in his capacity of Secretary to the Chief Commissioner in the Public Works Department; whether such orders were before issue always referred for concurrence to the Famine or Revenue Secretary, as was done in the North-Western Provinces, is not apparent. They were often found unsuitable in important respects to the requirements of relief and had to be modified soon after they were issued. The senior Executive Engineers, whose charges were conterminous with the civil divisions, controlled the operations of the district engineers, who were assistant engineers or senior upper subordinates. The civil officers attached to the works were, as in the North-Western Provinces, nominated by the civil department, but were subordinate to the district engineer.

Public Works officers in the Punjab.

232. The general scheme of the Punjab code in respect of relief works appears to be that there should be two sets of works. The first set consists of a few, and ordinarily small, works directly under the Deputy Commissioner and his relief circle officers, while the other set comprises all other works large or small under the officers of the Public Works Department. As regards the latter, the officer in charge is to be appointed by the civil authorities but is generally to be a Public Works officer, and in any case is to work under the officers of the Public Works Department subject to the co-operative control of the Deputy Commissioner and Commissioner; the Commissioner is the referee even in disputes on professional points, and the Chief Engineer or Superintending Engineer can make no

changes without consulting him. Thus the Commissioner exercises supreme control over all relief matters in his division, subject only to the orders of Government. During the late famine the immediate direction of the larger relief works in the Delhi division was entrusted to the Public Works officers, though civil officers of the rank of a naib-tahsildar were appointed to all the larger charges to assist the engineers in classifying the gangs, making payments, and the like, and the kitchens were managed by them directly under the Deputy Commissioner. The village tank excavation in Hissar was entirely under the civil officers, the officer in charge being generally the leading landowner in the village. Some other smaller works, chiefly roads, were in charge of tahsildars or naib-tahsildars, assisted by subordinates of the Public Works Department. The officer in charge of any relief work, whether belonging to the Civil or Public Works Department, had complete control over all the subordinate establishment employed. The Deputy Commissioner had as district officer general control of all works, subject to which the direction of the larger works was left entirely to the Public Works Department. On the other hand, in the Gujrat district, where a public work of extraordinary magnitude was started, the management of the relief work camps was at first entirely under the civil officers, engineer officers of the Public Works Department being deputed merely for the purpose of setting out the work, seeing that it was properly done, and supervising the measurements. The experiment was a failure, and eventually the management of this work was entrusted entirely to the Public Works Department. Both systems are apparently covered by sections 120 and 121 of the local code. It may, however, be noted that section 56 of this code, unlike the codes of the North-Western Provinces and Bengal, assigns certain responsibilities to Superintending Engineers in time of famine, among others the maintenance, as far as possible, of an equal standard of tasks and uniformity of procedure in setting tasks for the various kinds of work. In the Punjab also the Revenue Secretary was Famine Secretary, and Sir Dennis Fitzpatrick found it necessary almost from the beginning to direct that references and orders from or by all departments should be focussed in that Secretariat and dealt with under his own general control by the Famine Secretary.

Public Works officers in Bombay.

233. The Bombay code contains a more detailed plan than most codes of a system of co-operative management of relief works by the Revenue and Public Works officers. Section 37 of the Bombay code, like section 56 of the Punjab code, contemplates the control by the Superintending Engineer of all works entrusted to the Public Works Department, but section 38 prescribes not only the subordination of the executive officers of the Public Works Department to the Collector in all matters not strictly professional, as is the case in all other codes, but also the subordination in the same manner of all officers below the rank of assistant engineer to the civil sub-divisional officers. Section 90 provides for the appointment by the Collector of a special civil officer to supervise such arrangements as do not come under the head of construction. During the late famine almost all works were carried out by the Public Works Department, the principal exception being certain small works in the Khandesh district. His Excellency the Governor made over the immediate control of famine relief to the Revenue Member of Council. Under him the Revenue Secretary (who happened by seniority to be also Chief Secretary) worked as Famine Secretary to the Government. The Chief Engineer was in constant communication with him, and

obtained his concurrence, before issue, to all Public Works departmental orders affecting the management of relief works. The Superintending Engineer exercised general control over all operations, any differences of opinion between him or his executives and the Collectors being referred to the Commissioner. The system was very much the same as in the North-Western Provinces, the management on each work being almost entirely controlled by the responsible Public Works officer. The main difference is that the special civil officer appointed to co-operate with the Public Works officers was responsible solely to the Collector. This was much objected to by the Public Works witnesses, as it was said that these civil officers, who were unavoidably of quite a different class from that contemplated in the code, were inclined to pose on the works as independent officers, and to question all orders given to them unless communicated through the Collector. Objection was also taken to the subordination as provided in section 38 of all the Public Works subordinates to the civil officers in charge of sub-divisions of districts, or to any one but their own departmental superior officer, though it was admitted that, as a matter of fact, difficulties had seldom arisen from this cause, and that it was the principle only that was objected to. It may be added that the force of these objections has been admitted by almost all the Commissioners and Collectors connected with the relief operations.

Public Works officers in Madras.

234. There are certain peculiarities in the constitution of the Madras Government which tend to hinder the proper concentrated control of famine relief operations. In the first place, the Member of Council who has charge of the Public Works Department is not the Member who has charge of the Revenue Department. In the second place, by the Madras code the responsibility for directing all branches of famine relief, subject to the orders of Government, is put upon a Member of the Board of Revenue who is thereby *ex-officio* Famine Commissioner, but the code does not give him the special position in relation to the local Government which such special responsibility seems to require, at all events, in the case of extensive famine operations. He has to refer matters to the Government through the Revenue Secretary, and the constitution of the Government, as described above, does not facilitate the speedy disposal of such references. The Madras code lays down, in section 109, that all relief works other than local fund works, whether major works such as the Public Works Department would undertake in ordinary times, or minor works such as would in general be executed by the Revenue Department, will ordinarily be executed in times of famine by the former Department. But apart from this there is nothing to indicate that the Department, as a department, is responsible for the proper management of relief works. Nor is the constitution of the Department well adapted for the charge, for though there are, as usual, separate chief engineers of ordinary Public Works and of irrigation, yet the subordinate engineering staff has charge in its circles or districts of works of both kinds. Sections 41 to 43 of the code, which comprise special rules for the guidance of officers of the Public Works Department, simply require that timely arrangements be made for establishment and tools, etc., required for works under the control of the Department, but systematic departmental control is nowhere specifically provided for. Section 52 gives divisional officers within their divisions of districts the same powers and responsibilities as the Collector, subject of course to the control of that officer. Sections 93 and 94 provide that the officer in charge of a relief work will ordinarily be a

civil officer appointed by the Collector and under his control, and that a Public Works officer when in charge of both the general arrangements and construction shall, as regards the former, be under the control of the Collector. Section 55 provides for the appointment by the Collector of a special civil officer on large works or groups of works, but his relation to the Public Works officer in controlling charge is not defined. Apparently the former officer is to supervise and control the general arrangements and the latter the construction. Appendix VI, paragraph 2, provides that relief works will be carried out by daily labour under the immediate supervision of overseers, subject to the professional control of the engineer, all orders, other than those relating to purely professional matters, being issued by the Collector. Paragraphs 23 and 24 of the same appendix provide for the appointment of paymasters who are to be quite independent of the establishment charged with the supervision and carrying out of the work, and who will be kept in funds by means of imprests from the tahsildar. Section 110 provides that all officers of the Public Works Department, posted to affected districts for famine duty, shall be placed under the Executive Engineer of the division, through whom the Collector will issue all orders relating to the management of relief works, though the Executive Engineer will be subject in purely professional matters to the general supervision ordinarily exercised by the Superintending Engineer. Section 111 directs that the subordinate staff required for the execution of works will be provided in the Department of Public Works, except that required for local fund works, which must be provided by the boards concerned.

On the commencement of operations, works were started by Collectors under the supervision of the local board engineers, but as soon as it was evident that relief would be required on a large scale, the relief works in each district were entrusted to an Executive Engineer of the Public Works Department, whose charge was conterminous with the civil district. In a case in which the Executive Engineer was ordinarily in charge of two districts, a second officer was sent and the Public Works division was divided into two charges conterminous with the districts. The position of the Executive Engineer was a difficult one. The works under him were nominally in charge of his departmental subordinates, but orders other than those relating to professional matters were issued to these men by the Collector under paragraph 2 of appendix VI. This would not in itself matter much, as the Collector would no doubt issue orders with discretion, but in practice orders were also issued to them by the revenue divisional officers of the district staff. This may have been thought to be covered by the provisions of section 52, but it seems contrary to the intention of section 110. Under Government Order No. 216, dated 30th March 1897, these Public Works subordinates were authorised to reduce tasks subject to the sanction of the revenue divisional officers, but without reference to the Executive Engineer, who himself had no power under section 107 to alter tasks without the sanction of the Collector. So too in the important matter of payments to labourers, to which all Public Works officers in charge of relief works elsewhere have paid the closest attention with the object of making it as regular and systematic as possible, neither the Executive Engineer nor the overseer in charge had any control over the paymaster, who was appointed by the Collector and subordinate only to the tahsildar. The Superintending Engineer's duties in connection with relief works were in practice confined entirely to providing establishment, funds and tools, sanctioning

estimates, and issuing instructions on technical details. He had no practical control over the management of the works.

Management of relief works by Public Works officers under direct control of civil officers.

235. The systems followed in the different provinces as regards the management of works can hardly be said to be deviations from the provincial codes, for the wording of the codes on the subject of the responsibilities of the Public Works Department is generally loose enough to cover almost any of the systems actually adopted. This was perhaps intentional. Famine relief is an emergency of varying intensity, but in every case it absolutely requires the co-operation of officers of the Revenue and Public Works Departments, departments which are accustomed to work separately. It is not easy or perhaps safe to frame rigid rules for such co-operation, or to lay down precisely where responsibility is to rest for the efficiency of joint work. The Government must rely mainly upon the loyalty, good sense, and temper of the officers of both departments employed, and upon their common humane interest in the efficiency of relief. We proceed however to state the views we have formed upon the main issues. It is in the first place admitted by the great majority of witnesses, and also by several local Governments, that famine relief works, whether large or small, public or village, should, as far as possible, be conducted under professional supervision, and some witnesses, especially in the North-Western Provinces, have considered that even test works should ordinarily be conducted under this supervision, an opinion in which we concur. In districts in which there is a district board engineer this professional supervision can be exercised by that officer, under the orders of the Collector, as long as the duty is within his capacity. In such cases there is no difficulty. The question with which we are concerned is that of the management of works under the professional supervision of officers of the Public Works Department, either when there are no district board engineers, or when the number and size of the works and magnitude of the expenditure are such as to render recourse to the Public Works Department advisable. There then seem to be two courses open: Public Works officers may be deputed to the affected districts and placed directly under Commissioners of divisions or the Collectors of districts as their professional advisers and assistants, or the Public Works Department may undertake to manage the works departmentally. The choice between these alternatives depends entirely upon circumstances. We have no reason to imagine that Public Works officers of the requisite standing would object to being temporarily placed under the orders of a Famine or Divisional Commissioner, or of a Collector of a district, for employment on relief works within their division or district. But in all such appointments there are two essential conditions if friction is to be avoided. The deputed officer with his staff must in the first place be responsible in respect to his famine relief work to the Commissioner or Collector only, and not to them and also to his ordinary departmental superiors, and it is the Commissioner or Collector and not the supervising officers of the Public Works Department who will be responsible to Government for the efficiency of the operations. In the second place the deputed officer should have undivided control over the works entrusted to his charge, and any orders to the subordinates which the Commissioner or Collector may wish to issue should be issued through him. On these conditions, which are really essential to proper discipline and defined responsibility, we are of opinion that there is no objection to the temporary deputation of Public Works officers on district famine work, and that if ordinary

care were exercised in the selections made, the arrangement should work satisfactorily.

Management of relief works by the Public Works Department.

236. This plan, which appears to be that recommended by the Government of Bengal and to be favoured also by the Madras Board of Revenue, is one that will not always in our opinion be appropriate. When relief works are likely to be required over the greater part of a province, when the expenditure and attendance on them is likely to run into very large figures, and when the great bulk of the establishment of the Public Works Department will have to be employed on famine relief, it seems to us to be best, in the interests both of economy and of efficiency, that the full organization of the Department should be brought into play, and that subject to the following condition the ordinary chain of departmental responsibility should as far as possible be maintained. The condition is that some branch of the Secretariat, ordinarily the Revenue branch, should be the Famine Secretariat, and that all departmental orders affecting famine administration should be passed before issue or should actually issue through the Famine Secretariat. The latter plan is probably preferable. The alternative plan of placing each Public Works officer under the Divisional or District civil officers would mean in such circumstances as these the practical disintegration of the Public Works Department at the very time when the whole power of its organization might be of the greatest service to the State.

General recommendation.

237. We consider therefore that when famine is likely to extend over the greater part of a province the Chief Engineer, acting under the close control of the local Government in the Famine Department, or of the Famine Commissioner when such an officer with special powers has been appointed, should be responsible for the general direction of all relief works entrusted to the execution of the officers of the Public Works Department on the lines laid down in the code or by subsequent orders of the local Government or Famine Commissioner, and that under the Chief Engineer and subject to the special powers of the Commissioners of divisions and Collectors of districts in respect to famine relief the chain of departmental responsibility should remain as at ordinary times. When the famine is less extensive and operations are likely to be confined to the minor part of a province, the control may with advantage be less centralized, and it will be sufficient as proposed above to depute Public Works officers to have immediate management of relief works, and to associate one or more Superintending Engineers with the divisional Commissioner or Commissioners, or with the Famine Commissioner where, as in Madras, there are no divisional Commissioners, as professional adviser and assistant. The Superintending Engineer would in such case be responsible to the Commissioner for the supervision of the works and of the officers in immediate charge of them, but the primary responsibility for the efficiency of the relief works would rest upon the Commissioner and the Collectors. The duties of the Chief Engineer in respect to famine operations will in this case be confined generally to the matters referred to in sections 68 to 70 of the provisional code, *i.e.*, to obtaining administrative sanction for all the public works to be executed, to making the necessary re-distribution of funds and establishments, to the submission of an emergent budget, and to the issue of timely and ample instructions for the provision of tools and other requisites for the conduct of the selected works. Even when the first alternative is adopted and the Public Works Department as a

Department takes general control of relief works, we wish to state clearly that we are of opinion that the principle laid down in section 130 of the Famine Commission's report should be fully observed, that the Superintending Engineer and Executive Engineer should act in strict concert with the Commissioner and Collector, and should consult them before introducing any change in the management of works which may affect the degree of relief afforded, and that pending reference to superior authority they should accept their decision on all matters except arrangements of a purely technical nature. We consider, however, that except in cases of emergency the orders of the Commissioner or Collector should be communicated to the Superintending Engineer or Executive Engineer as the case may be, and not to subordinate officials employed on the works, who should all be wholly subordinate to the Executive Engineer. All the officers of the Department, from the Chief Engineer downwards, must continually bear in mind that works are only one form of relief, and that the responsibility for the general efficieney of relief must, subject to the local Government, rest primarily with the Revenue Officers of divisions and districts. Experience shows that the latter officers must have an effective control of all forms of relief within their charges, if the relief is to be really close and successful. There is great risk of its failing to be so if the direction of famine relief is too highly centralized, and too purely departmental in its different forms.

Conclusion.

238. The Famine Commission in paragraph 129 of their report, already quoted, have pointed out how greatly the duties of Public Works officers employed on relief works differ from those expected from them on ordinary works. This distinction cannot be too emphatically impressed on them, though we may add that, although the main and only vital object of relief works is to give effectual relief to the labouring population, it is a duty of the officers in charge to safeguard this relief against abuse by the maintenance of discipline and an effective labour-test. We believe, however, that the more strictly the responsibility of Public Works officers is confined to mere professional or technical matters the more likely will they be to consider the execution of a maximum of work at a minimum of cost their principal duty, and that on the other hand the larger the measure of responsibility and authority entrusted to them the more certainly will they realize that "the work is undertaken not for its own sake, but for the sake of the people employed on it."

CHAPTER V.

THE DEGREE OF SUCCESS THAT HAS ATTENDED THE MEASURES ADOPTED.

Introductory remarks.

239. In inquiring into the degree of success that has in each case attended the measures adopted, we have been desired to approach the subject from two points of view, primarily with regard to the relief of distress and the saving of human life and secondarily with regard to economy. This we do, and the present chapter will accordingly consist of two parts. Part I is an inquiry into the degree of success that has attended the measures adopted in each province judged by the extent to which those measures achieved the object of relieving distress and saving human life, and so far as it is possible in such an inquiry to dissociate the important matter of economy we have kept that consideration out of view. Part II deals solely with the economical side of the question, and is a comparative examination of the degree of economy attending the operations as a whole and the particular measures of relief adopted in each province. In the first part we have refrained from drawing any comparison between the different provinces. We do not consider it necessary to draw such a comparison, and even if it were desirable, it would be extremely difficult to do so. We therefore in this part deal with each province apart, examining the effective results of the various measures adopted within the province and expressing such opinions thereon as seem called for. The order in which the provinces are dealt with is that adopted in the preceding chapter where we give a brief narrative of the successive measures undertaken in each province. We adopt this order merely as a matter of convenience, and not as in any way indicating a greater or lesser degree of success in any particular province. In the second part our method of treatment is somewhat different. We there deal to a certain extent with reliable statistics and with facts capable of being quantitatively expressed, and by far the best way of exhibiting those facts is to throw them into comparison with one another. In doing so we have made it our chief concern to exhibit the facts in the clearest possible light, and where the indirect result of our comparisons is to indicate that in some provinces greater absolute economy was attained than in others, this inference does not necessarily imply that in the latter cases more economy might have been safely exercised. The question is so complicated by varying local conditions and administrative resources that no absolute standard of economy can be laid down or enforced. When therefore we draw comparisons between the scale or cost of relief in one province and another, we have tried to state the special circumstances which may have led to these differences, and unless we distinctly express the opinion that a greater or a lesser degree of economy might in those circumstances have been exercised, the comparison is merely relative and in no way suggests an inference unfavourable to the result.

PART I.

Bundelkhand famine of 1896.

240. **North-Western Provinces and Oudh.**—It will be convenient to deal first with the famine of 1896 in the four districts of Bundelkhand. There was some distress and some relief given in the same year in three or four other districts of the provinces,

but not to an extent which need be mentioned. In these four districts of Banda, Jalaun, Hamirpur and Jhansi the distress was very severe. When the Lieutenant-Governor visited the country at the commencement of 1896 he found it on the brink of famine, and measures were promptly taken. If the authorities had had at the time the experience they gained later, we think they would have probably put village relief into force in all the districts simultaneously with relief works, or as soon after as possible, and into further force than was done in some cases. It is noticeable that in Jhansi, the only district of the four in which this form of relief was not thought in any degree necessary, and in which other relief was also comparatively small, the death-rate throughout the year was persistently high.

Special measures to induce people to leave the works in June 1896.

241. The only other criticism that suggests itself is whether the special measures put in force in the beginning of June, to induce the people to leave the relief works and return to their ordinary avocations as soon as possible, were under the circumstances necessary and expedient. These measures have been described in the preceding chapter. Looking to the condition of the people as indicated by the monthly reports, it seems to us possible that these measures may have had some connection with the very high death-rates which prevailed in August, September and October in two of the four districts as shown by the following table :—

	Population in round thousands.	Number of relief workers.		Rate of mortality per mille.		
		End of May.	End of June.	August.	September.	October.
Banda	705,000	74,011	39,693	3·23	3·84	4·20
Jalaun	396,000	36,745	1,752	3·83	3·05	3·24
Hamirpur	513,000	38,312	2,729	5·33	6·78	8·06
Jhansi	683,000	27,446	3,020	7·53	7·09	7·37

The high death-rates in Hamirpur and Jhansi were attributed in these months to fever. A special inquiry made in the case of Hamirpur resulted in the report that it was principally due to malaria acting on a population much reduced in stamina. The cause in Jhansi was presumably the same. As has been already mentioned, no village relief was given in this district.

Same policy adopted in 1897.

242. This policy of taking measures to induce the people to leave the works and return to their ordinary avocations was, as has been narrated in the previous chapter, again adopted with very great effect: first, in the less severely distressed districts in March 1897 at the commencement of the *rabi* harvest; and, secondly in all districts at the commencement of the monsoon rains. Such a policy is not recommended in any of the famine codes, and cannot properly be said

to be supported by the only sentence in the Famine Commissioners' report which may be thought to be applicable. We refer to the last sentence in paragraph 132 which runs as follows: "Again, at the end of a famine, if any able-bodied labourers are disinclined to go back to their ordinary work, a system of piece-work may be used with lowered rates to induce them to go." This applies to the end of a famine and to the able-bodied only, and to a case where they have shown an unreasonable disinclination to leave works; but in this case it was assumed beforehand that large numbers of the people would stay on unnecessarily if measures were not taken; and the particular measure used in 1897, the substitution for code task-works of the modified intermediate system, particularly where it was maintained in the form in which it was originally introduced, without allowance to dependants, or weakly gangs, was calculated and intended to reduce the numbers of the weakly labourers and dependants on the works.

Objections on general grounds to this policy.

243. We do not assert or even suggest that the adoption of this policy in 1897 had any connection with the high death-rates which prevailed in some of the most distressed districts during the spring and autumn of that year. The fact shows that there was danger, but with perhaps one or two exceptions the district death-rates, though high, were not high enough to require special explanation in time of famine. Moreover, there is no doubt that the measures were not indiscriminately introduced in the spring, and that their effect on both occasions was very carefully watched. On general grounds, however, we think that this policy of inducing people to leave the works before a famine is ended is a dangerous one, unless used with the greatest caution and supported by a large extension of gratuitous village relief. Though the policy is not suggested by the codes, it is very probable that it may have been used in former famines to some extent, but so far as we are aware the late famine is the first in which it has been adopted as a rule or canon of famine administration; and the measures taken in the North-Western Provinces and the Central Provinces in 1896 and 1897 to carry it out seem to us to be unprecedented in degree, if not in nature. No doubt some closure and concentration of works is inevitable at the beginning of the monsoon, though not at the commencement of the *rabi* harvest; but we think that, so far as is possible, works which can be carried out in the rains should be substituted for works closed, and the attendance be then left to die a natural death. Even if there is good reason for expecting that the able-bodied agricultural labourers will find employment when the rains begin, it is not possible to be confident, while prices are still at famine pitch, and the landowners' and tenants' stocks at their lowest, that the wage will be good enough to enable the labourers to support their dependants. As to the weakly men and women and the non-agricultural labourers on the works, their chance of getting a living wage at such times appears to be small. The evidence we have taken is in favour of the view that, except perhaps in the case of very laxly and profusely managed relief works, the cultivators and agricultural labourers leave works as soon as ever they see their way to getting a living off them, and often on the mere chance of so doing.

Reduction of wage scale.

244. The great reduction in task-work wages, made by the resolution of 5th December 1896 and other orders, has been described in the preceding chapter. This reduction extended equally or more to the payments under the intermediate systems, as

the rates there used were calculated to give the workers the same wages if the full task was completed. The average daily wage paid to relief workers, and the average dole given to dependants on works managed by the Public Works Department between October 1896 and September 1897, are given at page 103 of the final famine report as follows: average daily wage, 13·3 pies; average dependant's dole, 4·5 pies; the average for both classes being 11·7. In 1896 the average daily payment of relief workers and dependants combined was, as stated in our preceding chapter, about 9 pies. It is not possible to compare these figures without knowing the number of children. But as grain was very much dearer in 1897, it is probable that the wage given in 1896 was comparatively the higher of the two.

We have stated in another part of this report the grain equivalent wages and doles which we recommend as standards. It will be seen on comparison that we consider the wages paid to have been too low for safety—particularly in the case of the carrier class and the children. They were presumably too low judged by conclusions previously accepted by high authorities both in respect to famine and jail rations in India, but it is argued that the experience of the late famine has shown that they were practically sufficient in the North-Western Provinces. As to this point many reliable witnesses who came before us, and who had good opportunities of observing the condition of the relief workers, thought the wages sufficient, but many other good witnesses thought them not enough to maintain full health and strength, and some said they were only fit to keep body and soul together. Some of the medical witnesses were distinctly of this last opinion. There was evidence that the workers very generally complained that the wages did not allow them to satisfy their hunger, and we are disposed to attach weight to such general complaint, notwithstanding that the witnesses who mentioned the fact often asserted that if higher wages had been paid the same complaint would have been made. The best defence, in our opinion, for these rates of wages seems to lie in the fact that they were probably sufficient to purchase rations equal to those which people of the poorest classes, who did not come on relief works, were able to obtain in such hard times. In the affected districts of the North-Western Provinces and Oudh and in some of those treated as not affected, there was no doubt a great mass of such people, but it is generally believed that in times of high prices they are seriously under-fed. No doubt in many cases the people made the wages sufficient by small additions from private resources or by eating cheap fruit or vegetables, but this was we think not generally possible.

The modified intermediate system.

245. The modified intermediate system as originally devised, with a very low wage basis, without allowances to dependants, or weakly gangs, and without a Sunday wage, does not seem to us a safe form of relief work, even for slightly distressed districts. For it is the least efficient labourers who are the first to lose work and require relief in times of scarcity. Moreover, if it can be safely assumed that the more efficient will be industrious enough to do the full task, and virtuous enough to properly provide for their dependants out of their earnings, it is certain that the less efficient cannot be expected to do more than earn enough to support themselves. Even with the addition of weakly gangs at favourable rates attached to every work and allowances to all dependants, this system seems to us not altogether safe where distress is so severe as it was in some districts of the North-Western

Provinces to which it was applied. We should prefer in such cases to give the weakly gangs, instead of favourable rates, task-work with a minimum wage. Under the latter system there is more certainty that the task and wage will be closely adapted to the powers of the labourers and the price of food, and if any mistake is made in these directions the minimum wage is a safeguard. In defending the modified intermediate system the local Government used the following words in paragraph 11 of its letter of 10th July 1897, to the Government of India :—

"The intermediate system undoubtedly requires very close supervision and contro to secure successful results, and it necessitates the employment of a large staff than the code system. Even with this additional charge it has the advantage in economy of working. But these conditions also tend to render it unsuited for the very extensive works that must be maintained and the large masses of people who must be handled in the acutely distressed districts where the code system is in force. But in the localities suitable for its operation it has proved adequate as a means of relief, efficient as a test, and effective and economical in securing a fair outturn of work at reasonable rates."

We have no doubt that it was effective and economical from the point of view of outturn of work : we are not so sure that it adequately relieved all the dependants and the inefficient labourer class. The correspondence shows that it was expected to greatly reduce the numbers of these people on the works, and the statistics show that it had that result. There was severe distress in some of the districts to which it was applied. That it gave such generally adequate relief as it did is due in our opinion to the very close control and supervision which all measures of relief received in these provinces, but it is not possible to rely on that being secured again in an equal degree on all future occasions.

Organization of town and village relief.

246. We have described in the preceding chapter the excellent arrangements made for organizing town and village relief. The table at page 111 of the final report shows that the numbers on this form of relief were 232,662 at the end of January 1897, and rose gradually to 288,339 in May. More than half of these numbers were in the six districts which had suffered so severely in 1896, namely the four Bundelkhand districts, South Allahabad and Hardoi. By the end of June the numbers had risen to 330,256, and by the end of July to 357,576, an increase in the two months of nearly 70,000 ; most of this increase was in the same six districts. But in the same two months, as the table at page 97 of the report shows, the number of dependants on works fell by 166,000 mainly in the same six districts. It may be assumed that the bread winners of most of these dependants found private employment by which they could support themselves and their families, and that the 70,000 persons added to the village lists include most of those who could not be so maintained. But as we have already remarked in the previous chapter, the total gratuitous relief on works and at their homes was, except in the Banda district, so considerably contracted that there is some reason to fear that many people must have been severely pinched in the interval before the harvest ripened, and the evidence we have taken leads us to apprehend that in some districts like Agra, where the numbers on village relief were always small, and did not increase when the numbers on relief works were reduced in June and July, a considerable number of incapable people failed to get the relief that was desirable.

Examination of mortality statistics.

247. The mortality figures* of the twelve months, October 1896 to September 1897, are given in the table at page 135 of the final report. The totals are as follows :—

ENTIRE PROVINCE.		FAMINE DISTRICTS ONLY.		SCARCITY DISTRICTS ONLY.	
Actual death-rate.	Normal death-rate.	Actual death-rate.	Normal death-rate.	Actual death-rate.	Normal death-rate.
36·30	33·04	39·54	32·80	36·53	33·26

We see no reason to question the substantial accuracy of these figures. There was no disorganization in these provinces likely to make the returns materially less accurate than usual. We say this after considering the contrary opinion expressed in a pamphlet entitled "A brief account of the famine" issued by the authorities of the St. John's Mission College at Agra, and signed by the Revd. J. P. Haythornthwaite, an opinion also expressed by a few of the witnesses who came before us. That gentleman does not seem to have had before his mind the full weight of the considerations ably expressed by the Sanitary Commissioner in a memorandum which is one of the appendices of the final report. The Sanitary Commissioner points out that the very causes which brought about famine resulted in greatly diminished prevalence of malarial fever, and also that the provinces happened to enjoy a general immunity from epidemic diseases, the mortality from such diseases being much below the average. Cholera was well below the mean, even in the famine districts. As is said in the final report, the mortality was usually in almost direct relation to the severity of distress known to prevail. No practicable organization of famine relief can prevent this happening to a very large extent in times of severe famine. Examination of the statistics shows that in the famine districts the death-rate was unusually high in the first-half of the period, even in months usually healthy. There was then an abatement in April, May and June, followed by still higher death-rates in the most distressed districts in July, August and September. This was attributed to malaria acting on an enfeebled population, but some of the returns for these districts also show much dysentery and diarrhœa. On general considerations it is likely that any deaths really due to privation would be returned by the police under two heads—fever, or diarrhœa and dysentery. By the returns, deaths under these two heads were most exces-

* NOTE.—The above figures are up to September 1897 only. But the death-rates were exceedingly high in some districts in October and November, as has been noticed in a comparison made in the Central Provinces final report. We give here the figures for August, September, October and November 1897 for the following eight districts :—

	August.	September.	October.	November.
Hamirpur	6·62	8·93	9·89	6·60
Banda	2·61	4·05	4·76	5·06
Jalaun	6·19	9·34	9·78	6·95
Jhansi	4·40	5·15	5·64	4·74
Muttra	2·00	4·75	8·37	7·73
Agra	4·17	7·75	12·44	9·22
Etawah	3·08	4·26	8·83	7 46
Hardoi	5·72	4·82	5·40	4·05

These high death-rates are attributed to the effect of malarial fever upon a population which was in some districts much enfeebled by privation. The only question suggested by them is whether the measures taken in June to September to close relief were not to some extent premature. The only district in which village relief was largely increased as the works were generally closed in July or August was Banda. Some increase was also made in Jalaun, Jhansi and Hardoi.

sive in the following districts, which are given in the order of degree of excess: Hamirpur, Banda, Jhansi, Hardoi, Fatehpur, Allahabad and Rai Bareli. This is very much the order in which one would expect these districts to figure from the known intensity of distress in them. The fact that these high, though not excessively high, death-rates prevailed in these districts in these three months goes to support what we have said as to the necessity of great caution in inducing people to leave relief works at the beginning of the monsoon. In regard to the provinces as a whole, we entirely accept the Sanitary Commissioner's opinion that the rise in the death-rates was due to perfectly normal diseases acting on an enfeebled population. As we have already said, a very considerable increase of this kind is unavoidable in hard times.

It is mentioned in the final report that the number of ascertained starvation deaths was only 25. The definition adopted seems to have been extremely strict. We do not think the figures of starvation deaths sufficiently reliable in any province for serious discussion.

Suspensions and remissions of revenue.

248. A salient feature of the operations in the North-Western Provinces was the liberal suspensions of land revenue that were allowed. Sums aggregating in round figures one crore of rupees were suspended out of the autumn demand, and later on when the spring instalments of revenue fell due further suspensions were made aggregating about 44½ lakhs of rupees, while fresh enhancements of revenue in Oudh amounting to about 3 lakhs of rupees were postponed. The total suspensions made on the autumn and spring land revenue instalments thus amounted to nearly one and a half crores of rupees. Of this amount, it has since been determined to entirely remit 60 lakhs or about 42 per cent. And full use was made of the provisions of the law regulating the grant of taccavi advances. Altogether over 42 lakhs were advanced under the Agriculturists' Loans Act and the Land Improvement Loans Act, of which Rs. 23,73,407 were under the former Act. There can be no doubt that these very liberal measures of relief must have greatly mitigated distress, particularly among the smaller landowners and tenants.

General conclusions arrived at by the Commission.

249. Relief was begun not too soon, but in time, though there were plenty of sceptical people ready to question the necessity. The local Government showed incessant activity and watchfulness, a constant grasp of the situation, skill in combining all forms of relief, and a great power of enlisting the services of the leaders of native society. The concentration of powers and direction for the administration of a great famine, so strongly recommended by the Famine Commissioners in paragraph 118 of their report, was secured by the Lieutenant-Governor becoming his own Famine Commissioner and most vigorously performing the duties, in addition to his ordinary work.

We agree in the general verdict that the result was a conspicuous success and a great administrative feat.

We have freely criticised all points in the operations which seemed to us open to question, as it is our business to try to draw lessons from all that has been done in the recent famine. The degree of success in saving life and relieving distress was we think very great, particularly in comparison with the cost

which was proportionately small. The local Government was confronted in the autumn of 1896 by a prospect of most widespread and severe distress; and as the Lieutenant-Governor has himself told us, the key-note of his policy was to aim at economy, and to rely upon constant watchfulness and information to prevent the regard paid to this important consideration from unduly limiting the distribution of really necessary relief. Though we do not say that this result was not successfully secured on this occasion, we think that some of the measures adopted with the view of economy contained elements of risk, and can hardly be recommended as general lessons for guidance in a future crisis of the same character. Under less able guidance, and with a weaker staff of officers, not distinguished by the same high average of experience, ability and devotion to duty, we think the effect might be a failure.

The area affected.

250. **Bengal.**—In Bengal, the short outturn of the crops of 1896 and the consequent pressure of high prices caused suffering more or less throughout the whole province; but it was only in 15 districts that distress amounting to famine was officially declared to exist. In these 15 districts an area of 27,981 square miles carrying a population of 13,245,000 souls was considered to be affected. It is convenient to divide the 15 affected districts into the following four groups:—

(*a*) The five affected districts of Behar, distinguishing between the four Trans-Gangetic districts of Saran, Champaran, Muzaffarpur and Darbhanga, and the South Gangetic district of Shahabad.

(*b*) The two affected districts of the Bhagalpur division.

(*c*) The three affected districts of Chota Nagpur.

(*d*) The four affected districts of Bengal proper, and the district of Puri in Orissa.

Prompt measures in North Behar.

251. As regards the degree of success that has attended the measures adopted in the four northern districts of Behar, whether considered from the point of view of the relief of distress or of the saving of human life, there is little to be said beyond that they were entirely successful in both respects. The economic condition of that congested region has been a constant source of anxiety to the local Government; its liability to famine or scarcity established by the experience of the scarcities of 1866, 1874, 1875-76, 1885-86, 1887-88 and 1891-92 has always been recognised, and whenever agricultural conditions have been unfavourable, the tract has in recent years engaged the special attention both of Government and of the local officers. As was to be expected in these circumstances, the situation in the latter part of 1896 was immediately diagnosed, the approach of distress was promptly discerned, and relief measures on an extensive scale were at once introduced. In 1893-94 and 1894-95 the harvests had been good, in 1895-96 they were indifferent and in 1896-97 they were bad. The distress therefore was due to the occurrence of one indifferent and one bad year following upon good years. In the first of these two years the crop failure was not so serious as to materially affect for the time being the prosperity of the people, and at the end of 1895-96 the Commissioner reported that they were far from scarcity or want, and but little worse off than in the previous year. In 1896-97 however the crop failure was extensive, and this coupled with the prevalence of famine prices quickly brought on distress at the end of 1896 in a densely peopled tract where

not many months before the Commissioner had reported there was no scarcity or want.

252. Once the situation was judged and relief measures introduced, the carrying out of these measures was comparatively a simple matter. There were no exceptional physical or geographical difficulties to deal with, and both the officers of Government and the people themselves had the experience of the past to rely upon. The people are not averse to accepting relief when they feel they require it, and free as they are from prejudice in this respect, the only real difficulty in dealing with them is the numerical density of the population and the pressure on the soil. But it is to this very density of population that the success of the operations may to a large extent be attributed; it renders it obligatory on the Government to adopt measures both full and adequate, and to avoid all risk of losing ground which, once lost, it would be almost impossible to recover. The evidence in our opinion establishes the conclusion that in these districts there has been no excess mortality that can be ascribed either directly or indirectly to famine, and that a very large measure of success has been attained in alleviating distress. There were very few famine-stricken wanderers in Behar, though a certain number of beggars and unemployed people were on the move from their villages to the towns to beg or seek work. In some parts of the province a number of such people came down the grand trunk road, most of whom were from Bundelkhand, Rewah and the North-Western Provinces, and among them were many whose condition was often very bad. The relief works were near the homes of the people, with the result that the people enjoyed a very tolerable degree of comfort and a fair condition of health; there is little or no evidence that home or family ties were unnecessarily broken up, or that houses, cattle, trade implements or necessary furnishings were lost. And lastly, when rain fell and field operations again became possible, the people appeared to be able to resume their ordinary avocations without much difficulty and without undue pressure being put upon them by the authorities to leave the works. It is true that here as in many other provinces, resort was had to the policy of inducing the labourers to leave the works by tightening wages, but so far as this policy was enforced in Behar the evidence shows that it did no harm and was perhaps even unnecessary, as the people generally went off of their own accord without it. In the Manbhum district of the Chota Nagpur division, where as we notice later on the same policy was enforced, the closure of works in August proved to be a dangerous mistake which was however quickly rectified by the Commissioner. The case of Manbhum is in our opinion a good instance of the risks attending this policy.

Success of the measures introduced in North Behar.

253. The circumstances of the South Gangetic district of Shahabad are somewhat different from those of the four northern districts of Behar. The tract affected was the south-west corner of the district comprising the Bhabhua sub-division and part of the Sassaram sub-division, and consisting of two sharply defined regions, *viz.*, the hills and the plains. Here the population is less dense than in north Behar, and in part of the distressed tract where the rice crop was a total failure, the cultivators are described as being inexpert and impoverished, while the physique of the people is poor and their general condition bad. In this tract the local officers failed to realize the approach of distress, and when the

Delay in commencing operations in Shahabad.

Collector organized relief works and gratuitous relief in February, it was found that the people were considerably reduced. The relief subsequently given appears to have been commensurate with the requirements of the case, but it is doubtful if the ground lost at the commencement was ever quite made good. The disproportionately high percentage of the population which had to be put on gratuitous relief is scarcely compatible in the circumstances with an entirely successful system of relief, while the excess mortality of the year would seem to indicate a degree of suffering which was not to be found in north Behar. No doubt the local Government is right in attributing the increased mortality to outbreaks of cholera and small-pox, and to the presence of fever in August and September, but there is evidence that there is something besides this to account for the rise. The Collector in his report remarks that the year was undoubtedly healthy in the district as a whole, but not so in the affected area. He says that in Bhabhua the death-rate was particularly bad, and while he asserts that there was no actual death from starvation, he expresses the belief that the pinch of scarcity and the pressure of want did reduce many persons to a state which rendered them less able than usual to withstand disease. The conclusion in respect of this district therefore seems to be that, although, on the whole, the measures adopted were successful, yet the failure of the local officers to detect the distress at the beginning had throughout an unfavourable effect upon the results of those measures.

Relief measures adequate in the Bhagalpur division.

254. Turning to the Bhagalpur division, the northern part of the Bhagalpur district where distress appeared is similar in physical characteristics and in many other respects to that part of north Behar which it adjoins. Here distress developed more slowly, it was never acute and the period of duration was short. The evidence indicates that the measure of relief afforded was commensurate with the requirements of the district. In the Sonthal Parganas the people to be dealt with were largely aboriginal with a marked aversion for regular work and extremely reticent. The distress was late in developing and never became very acute. The increased mortality of the year is in some degree attributed by the Deputy Commissioner and the local Government to sporadic cholera due to bad and insufficient food—an element which experience shows it to be difficult to remove in the case of aboriginal races.

The Chota Nagpur division.

255. In the Chota Nagpur division, although some relief on a small scale was given in the Lohardagga and Singhbhum districts, only the three districts of Palamau, Manbhum and Hazaribagh were officially recognised as distressed. From first to last the circumstances of this division were such as to cause the gravest anxiety to Government. As observed by the Lieutenant-Governor, "though the numbers on relief were never large, constant anxiety was felt owing to the extremely high prices that prevailed and the wild and scattered character of the population." The physical aspect of the division as a whole is that of a tract broken with hills, and interspersed with cultivated valleys of more or less fertility; railway and other communications are generally poor, parts of the division being completely isolated from the railway system; and the population is scattered, consisting largely of aboriginal or semi-aboriginal races. These forest tribes are of a restless and independent nature, averse to the regular routine of relief works and content to eke out a scanty subsistence upon jungle produce which, though sufficient to maintain life for a certain period, is deleterious if unaccompanied

by a due proportion of more nourishing food. In the circumstances, it is a matter of little surprise that at no period of the operations did the system of relief move with that smoothness which is such a marked feature of the operations in Behar. At the beginning, distress was difficult to locate and the application of the usual tests was frequently far from successful; and even when a work test was of use difficulty was experienced in effecting a proper adjustment of tasks and rates. Throughout the operations, the exaction of a task sufficiently high to be a test of the need of the applicant for relief, and yet sufficiently low to attract these forest tribes, was continually a perplexing problem; the administration of gratuitous relief in large areas of scattered distress like the Palamau district, and especially of kitchen relief, was hampered by obstacles which it was difficult to surmount; and the regulation of the grain trade and food supply was a matter at once hard to correctly gauge, and when gauged difficulty was experienced in bringing into effect the measures which it was deemed necessary to adopt. At the end, the closure of relief operations was not in every case a matter of obvious expediency. On the 24th August the Commissioner proposed to close all relief works and gratuitous relief from the end of the month, giving two weeks' pay or dole as valedictory gratuity. The Bengal Government sanctioned the proposal by telegram and it was carried out, though in some districts there was opinion against the measure. In Manbhum at any rate the measure was premature, as the works had almost immediately to be re-opened and the numbers on them were at once very large and continued large till near the end of October though considerable pressure by reducing wages was put upon the people to make them quit the works. As we have already observed, this incident affords a striking example of the risks attending the policy of adopting stringent measures to induce the people to leave the works when rain falls and agricultural operations are resumed.

The importation of grain by Government into Palamau.

256. It was chiefly in connection with the Palamau district that the question arose whether or not the ordinary efforts of private trade would suffice to meet the requirements of the division. As early as January 1897, the Commissioner, in view of the seriousness of the situation and the alarm that was felt in consequence of the unprecedented rise in prices and the prohibition of export from the neighbouring native states, recommended the importation by Government agency of a lakh of maunds of grain. To this, however, the Government was unable to agree, but subsequently sanction was given to a proposal to allow a bounty of eight annas per maund on all Burma rice imported. Later on, as full advantage was not taken of this concession, an allotment of Rs. 75,000 was sanctioned for loans for the import of grain, and the restriction of the bounty to Burma rice was removed and the privilege extended to all rice. But even this was considered to be insufficient, and eventually Government imported over 15,000 maunds of Burma rice for use on the Government relief works and for gratuitous relief only. The Commissioner, we observe, in his final report is still of opinion that his original proposal fully made on the 21st January for import by Government, or through a contractor for Government, was the right one. He appears to hold that at that time, before the draught cattle were generally required for agricultural operations, the difficulty of carriage would not have been insuperable. Why the local Government thought it impossible to assent to the

Commissioner's proposal we do not know, but so far as we can judge the case seems to us to be one in which the general objection to Government importing grain itself was carried too far.

The degree of success in Chota Nagpur not so conspicuous as in Behar.

257. Whether regarded from the point of view of saving life or of relieving distress, the high degree of success attained in north Behar was not reached in Chota Nagpur. The three affected districts return a considerable excess mortality and a diminished birth-rate. That the excess mortality is to some extent due to cholera and small-pox is undoubtedly the case; little, if any, is directly due to starvation, but on the other hand there is ample evidence that a considerable portion of it is due to privation. At page 75 of the final report the Government says:—"The reluctance of the aboriginal tribes in Chota Nagpur to come on relief works, and their preference for an independent life of extreme privation while subsisting on jungle products, has already been referred to, and it was inevitable that much suffering should have been experienced and the indirect mortality increased." This view in our judgment correctly sums up the evidence and may safely be accepted. The Commissioner's report and the evidence of medical and other officers show to what extent suffering and distress followed by subsequent physical deterioration prevailed, and to what degree the measures adopted failed to entirely alleviate the distress. But although the measures adopted may not have been completely successful in every respect, yet the degree of success attained was in the circumstances that prevailed very high.

Adequate relief given in other parts of Bengal.

258. In the affected districts of Bengal proper and Puri in Orissa there is no reason to doubt that the measures adopted were adequate. In some districts it is acknowledged that too many people were for a time admitted to the gratuitous relief lists without proper inquiry, but the mistake was quickly discovered. We observe that in the Bankura district the Sonthal labourers obstinately resisted attending test and relief works because the rate of wage offered was considerably lower than the customary wage, and they apprehended that if they accepted it the customary wage would be permanently lowered. We had evidence of the same idea having the same effect on particular classes in other provinces. The fact suggests doubts of the safety of the policy sometimes advocated of fixing wages on test works below even the full famine code scale.

Insufficiency of the wage scale.

259. In the preceding chapter of our report we have shown that in Bengal detailed rules for the conduct of relief works were issued by the Government which followed in most respects the similar code of rules issued by the Government of the North-Western Provinces. The North-Western Provinces system of recognising two main classes of workers was adopted, as was also its wage scale under which the lower or carrier class was given only the minimum wage of the code. In paragraph 244 of this chapter, when speaking of the North-Western Provinces, we have expressed our opinion that this wage is below a safe standard. We observe that among the Behar witnesses there is much testimony as to its sufficiency, though the only medical witness we examined there condemned it, but we repeat that the minimum ration wage was not devised as a working wage, and even in the case of the poorer classes of Behar, who are of small physique and habituated to low diet, it is hard to believe that it could support working people in health and strength for any lengthened period without they had some other resources.

In the circumstances existing in Behar and other parts of Bengal, where the people at large were not reduced to great extremes by prolonged and acute famine and where the works were generally adjacent to the homes of the people, it is impossible to assume that other resources were not available to them.

The low gratuitous grain dole.

260. We have noticed elsewhere in our report the great prominence given to gratuitous relief in Bengal, and we have stated the reasons that contributed to this result. With one or two exceptions to which we have already alluded, the elaborate organization established for the purpose was able to confine this mode of relief within reasonable limits and to restrict its application to those who were really deserving of it. The gratuitous grain dole allowed by the Bengal code is lower than that which we recommend as a safe standard, and in paragraph 111 we have enumerated the causes which in the circumstances that existed led to its being found sufficient for a bare subsistence.

Examination of the mortality statistics.

261. The following table shows the death-rate of the affected districts, both for the entire district and for the area affected in each, as compared with the average of the preceding five years:—

Districts.	Whole District.			Affected Tract.		
	Average of 5 years ending 30th September 1895.	1895-96.	1896-97.	Average of 5 years ending 30th September 1895.	1895-96.	1896-97.
1	2	3	4	5	6	7
1. Shahabad	32·80	39·53	33·30	34·87	30·50	38·22
2. Saran	31·88	34·99	28·43	34·90	32·59	27·73
3. Champaran	36·07	40·92	34·60	34·20	41·40	34·08
4. Muzaffarpur	38·28	47·90	30·53	38·28	47·90	30·53
5. Darbhanga	32·00	48·90	28·20	32·00	48·90	28·20
6. Bhagalpur	34·09	37·80	27·03	30·25	40·00	24·82
7. Sonthal Parganas	22·36	25·57	25·18	25·77	28·49	33·13
8. Hazaribagh	33·32	37·37	43·83	32·95	36·12	48·35
9. Manbhum	25·35	29·24	31·39	21·77	24·76	27·78
10. Palamau	33·91	31·21	36·40	33·91	31·21	36·40
11. Bankura	26·37	32·64	27·17	25·96	29·11	29·41
12. Nadia	24·76*	48·25	26·57	Not available	47·52	23·32
13. Murshidabad	33·18	37·70	27·26	31·13	38·14	24·02
14. Khulna	31·42	39·53	34·09	33·03	41·29	33·17
15. Puri	30·11	27·44	24·81	32·81	28·21	25·00

* Figures for 9 months only.

Verified deaths from actual starvation were so few that it may safely be assumed that practically no mortality can be ascribed to this cause. Shahabad, it will be seen, is the only district in Behar in the famine affected parts of which the death-rate during the famine year exceeded the death-rate of the preceding year or the average of the five-year period ending September 1895. As might have been expected, the affected tracts in the hilly districts of the Sonthal Parganas, Hazaribagh, Palamau and Manbhum all show death ratios higher than

those of the preceding year and higher than the quinquennial mean. The difficulties which met the authorities in persuading the inhabitants of those districts to accept relief on the conditions on which it was offered have already been touched upon, and the causes which led to the increased mortality have been indicated. It is only in Hazaribagh that the rise is particularly marked.

General conclusion.

262. Our general conclusion regarding the measures taken in Bengal is that they were eminently successful both in saving life and in mitigating distress, and that on the whole this result was attained with a due and proper regard to economy.

Commencement of distress in the Central Provinces.

263. **Central Provinces.**—Distress was officially recognised to prevail throughout the Central Provinces in the end of 1896, but in the three districts of Saugor, Damoh and Jabalpur it evidently began in 1894, and continued with more or less severity till it culminated in the famine of 1896-97. We think it advisable to give in some detail a history of this long continued distress as it affords some valuable lessons and warnings. It will be useful to begin by inserting here some statistics which will serve for reference.

Average outturn of all crops, Kharif and Rabi, from 1892-93 to 1895-96 (100 = full crop).

District.	K. R. 1892-93.	K. R. 1893-94.	K. R. 1894-95.	Average of 3 years.	K. R. 1895-96. Kharif	K. R. 1895-96. Rabi.
Jabalpur	69	55	42	55	Kharif very poor	Cropped *rabi* area fallen off. Outturn good in parts but bad in poor soils.
Saugor	70	31	39	47	Kharif poor ...	Cropped *rabi* area fallen off. Outturn poor. Area of wheat less than one-third of normal.
Damoh	55	45	41	47	Kharif poor ...	Cropped area fallen off. Outturn very poor. Area of wheat less than one-fourth of normal.

The above returns are taken from the tables in the Chief Commissioner's letter No. 2161 of 13th June 1896. In paragraphs 5 and 6 of that letter the Chief Commissioner also describes the harvests of 1895-96 as follows. In the Jabalpur division the *kharif* outturns of all kinds of crops were exceedingly poor, and owing to stoppage of the monsoon in September and deficiency of seed the *rabi* areas of wheat and linseed were far below the normal, and the average outturn poor.

Falling off of rabi cropped area.

264. In order to show what the falling off of cropped *rabi* areas, referred to above, amounted to, we give here the following figures taken from the table on page 3 of the Chief Commissioner's letter No. 849 of 12th February 1897 to the Government of India. It will be observed that the falling off in *rabi* cropped area began in 1894-95, and it may be added that the deterioration of class of crop by substitution of inferior grains for wheat (owing mainly to want of power to purchase wheat seed) also began in 1894-95 to a very serious extent in all three districts. The Deputy Commissioner of Jabalpur, in his letter of 27th April 1895, reported that the area sown with wheat in 1894-95 was less by 100,000 acres, or near one-fourth, than that of 1893-94. In 1895-96 the falling off of wheat in Jabalpur must

have been far greater, for the total cropped area fell off enormously, as the table shows:—

Area under rabi crops.

District.	K. R. 1893-94.	K. R. 1894-95.	K. R. 1895-96.
	Acres.	Acres.	Acres.
Jabalpur	712,816	629,892	455,994
Saugor	680,542	641,262	527,551
Damoh	350,181	317,939	237,206

The importance of this combined decline in the total *rabi* cropped area, and in the proportion of wheat to inferior crops, may be gauged by the following quotation from page 2 of the Chief Commissioner's letter No. C.-156 of 16th April 1894, to the Government of India. It refers to Saugor and Damoh, but is equally true of Jabalpur:—

"Wheat is the staple crop of both districts. It covers some 60 per cent. of the cropped area in Saugor, and 45 per cent. in Damoh. From the winter harvest, of which it is the principal constituent, is paid three-fourths of the annual land revenues of the districts. Wheat is the main item of export and commerce for both districts. It furnishes the staple food of the people, and their welfare is in consequence very largely dependent on the annual outturn of this crop."

Prices between 1894 and 1896.

265. In 1894 the Government of India, in the Revenue and Agricultural Department, and at other times the Government of the Central Provinces, referred to the comparative moderation and steadiness of the prices of the more important food-grains as evidence that the distress could not be very great.

The table below gives a quinquennial average taken from the Director General of Statistics "Wages and Prices," and May prices for the years 1894-96 taken from the Chief Commissioner's letter of 13th June 1896:—

Grain.	District.	Prices in seers per rupee.			
		Quinquennial 12 months average 1886-90.	May 1894.	May 1895.	May 1896.
Wheat ...	Saugor	16·83	12·36	11·76	11
	Damoh	18·74	12·75	12·50	10·50
	Jabalpur	15·68	17	14·25	14
Gram ...	Saugor	20·92	19	18·76	16·50
	Damoh	24·33	18	18·75	14
	Jabalpur	20·5	23·50	19·25	16
Rice ...	Saugor	9·82	9·79	11·05	9
	Damoh	12·35	10·00	12·50	9·00
	Jabalpur	11·84	14·25	16·00	13·30

It seems fair to take the quinquennial average for 1885-90 as representing the normal. The decennial average for 1884-93 would give prices too low to be treated as normal, for prices were very cheap in 1884 and 1885 and have since been gradually rising.

The comparison in the table seems to show that in Damoh and Saugor the prices of 1896 were at or near what is locally the scarcity pitch, but that in Jabalpur the rise had been only slight. The comparative steadiness and moderation of prices in the three districts were apparently due to good stocks in other parts of India, and to railway communications with Saugor and Jabalpur. Also to stoppage of export *viâ* Bombay due to low prices in Europe.

Mortality statistics between 1893-94 and 1895-96.

266. The following mortality statistics are taken from paragraph 19 of the Chief Commissioner's resolution of 1st February 1897 :—

Year (1st October to 30th September).	Jabalpur.	Marwara, a Tahsil of Jabalpur.	Saugor.	Damoh.	REMARKS.
1893-94 ...	35·62	36·74	38·62	36·26	For the calendar year 1893 the rates of mortality in Saugor and Damoh were 30 per mille.
1894-95 ...	41·28	36·21	53·34	43·86	
1895-96 ...	56·11	58·40	67·29	79·92	

These are deaths from all causes including cholera and small-pox, but cholera is so often an accompaniment of severe privation, that it seems best to use deaths from all causes. The year 1893-94 was a year of excessive rainfall, and in the latter half of great privation, owing to the total failure of the spring harvest. We should therefore expect the death-rate to be heavier than usual, and it appears to have been so in the last six months. The great successive increases in the death-rates of the next two years are very striking. The table from which the above figures are taken gives the monthly details. These show that in Jabalpur and Damoh the failure of the *rabi* of 1893K.-94R. was followed by a heavy increase of mortality which lasted from April to December 1894. In Saugor the rise did not begin till August 1894, but after that, except for two months (June-July, 1895), the mortality remained continuously very high till the end of 1895-96. In Jabalpur the death-rate, after going down in January 1895, became again very high in April and May 1895, and after declining for the next three months became very heavy again in September 1895, and remained thereafter more or less very heavy till the end of 1895K.-96R. In Damoh the death-rate, after keeping fairly low for six months after the fall in January, rose again in August 1895, and after that remained continuously very heavy till the end of 1895K.-96R. In all three districts the rates of mortality were very heavy, not only at the end of 1895K.-96R., but throughout that year. The lesson seems to be that great failures of the principal food crops will locally produce great distress among the labouring classes, though the rise of prices may be gradual and not immoderately high.

Review of the scarcity of 1893-94.

267. The history of the famine or rather scarcity of 1893-94 is given in the Chief Commissioner's (Mr. Woodburn) resolution of 26th January 1895 for Saugor and Damoh, which were the districts treated as distressed. Jabalpur was not

considered affected, though from the enclosures to the Chief Commissioner's subsequent letter to the Government of India of 29th May 1895 it was evidently in a bad way in 1894. After reading all the correspondence of 1894 we think this resolution gives a fair but rather subdued account of the distress in Saugor and Damoh in 1894, and a full account of all that was done to relieve it.

Land revenue was freely suspended and remitted. Government forests were opened. Five road relief works were started on 23rd April in Saugor, and two in Damoh. Only minimum wages were allowed on these till the end of June. Till the end of May these works attracted small numbers. They were closed in Saugor at the end of October, and in Damoh at the end of November. The maximum and average numbers on these works were—

Saugor	...	...	...	...	11,583 and 5,102.
Damoh	...	...	...	...	4,145 and 2,244.

Rupees 1,03,000 were spent on these works, of which Rs. 23,000 were from local funds and the rest from provincial revenues. No Government poor-houses or gratuitous relief were thought necessary, but the richer classes arranged to feed needy incapables. Not a single attempt was made by proprietors to collect rent where revenue was suspended. These proprietors had lost all the seed-grain which they advanced to their tenants to sow the *rabi* of 1894, but they again did their best to advance seed-grain for sowing the *rabi* of 1895. Government assisted with taccavi seed advances in August-September to the extent of more than 5½ lakhs of rupees, and a tolerably large *rabi* area was sown, but to a large extent with gram and other cheap grains instead of wheat.

Small numbers on relief in 1894.

268. The number of labourers attracted by the relief works was very much smaller than was expected. We think this was probably due to the small number of works and to the minimum wage enforced for the first two months. The heavy rains which then came on made life on the works very disagreeable, and told against the attraction of a better wage. With the aid of the forests, some agricultural employment, and generous help from their neighbours, most of the labourers contrived to keep off the works. Of the reality of distress among the labouring classes there can be no doubt, as reported by the Chief Commissioner in his letters to the Government of India of July 2nd and 17th (1894), written after visiting the relief works.

As the Chief Commissioner said in his letter to the Government of India of 29th May 1895, the measures of relief taken in 1894 were none too much to prevent the deterioration of the two districts, which had passed through a serious crisis. An import of 20 lakhs of maunds of grain had taken the place of the usual large exports, and the indebtedness of the agricultural classes had largely increased. The rise in death-rates which followed the failure of the *rabi* of 1894, as noticed above, in Jabalpur as well as in Saugor and Damoh, is also a proof of the severity of the distress.

The agricultural year 1894-95.

269. We now come to the agricultural year 1894-95. The Chief Commissioner (Mr. Woodburn) had said in his letters to the Government of India of 2nd July 1894 about Saugor, and 17th July 1894 about Damoh, that all depended upon a good *kharif*, without

which the situation would become serious and relief works might have to be continued. A large area had been put under *kharif* crops, and the outturn was probably not known when the relief works were stopped in October—November 1894. But a little later it was known that the outturn was bad in Saugor, and generally poor in Damoh. As, however, the *rabi* crops on the ground looked promising, nothing was done, and it was determined to wait to see how they turned out (resolution of 1st February 1897). In the end of April or beginning of May 1895 reports came in from Jabalpur as well as Saugor and Damoh (enclosures to Chief Commissioner's letter of 29th May 1895 to the Government of India). These showed an extremely poor *rabi* in all three districts, the outturn of wheat being six annas in Saugor and three annas in Damoh and Jabalpur. Taken with the *kharif*, which was not very poor in Jabalpur, the outturn of both harvests of 1894-95 in all three districts was nearer one-third than one-half of the outturn of a good average year. For the three years ending with 1894-95 the average outturn had been a little under half in Saugor and Damoh, and a little over half in Jabalpur. The gross outturn of food grains in Saugor and Damoh was estimated to be not enough to supply the people without allowing for seed-grain. In all three districts much land was said to have been sold and mortgaged, savings in cash and jewels to have been largely trenched on, and the indebtedness of the agricultural classes to have greatly increased. As to the labouring classes, distress in more or less severe form was said to be already felt. Relief works were expected to be necessary after the harvest and collection of *mahua* were over. A demand for large taccavi advances was anticipated later on.

Measures adopted in 1895.

270. It does not appear from the correspondence that these reports were condemned as exaggerated, but they must apparently have been so considered, as one small test relief work which had been going for about a month in Damoh was stopped,* and it was decided that no relief works would be necessary. The Chief Commissioner approved, however, of some special road works being started in Jabalpur and Damoh, to be carried on by the Public Works Department in the usual way, except that so far as possible contracts were to be given to local malguzars. The forests were already open in Saugor and Damoh. There were reasons which made it useless to open the Jabalpur forests, the *mahua* crop having failed. No orders were given about taccavi for seed, and it appears that in this year "taccavi was not pressed upon the people," and very little was actually advanced. No Government poor-houses or gratuitous relief were suggested in the correspondence, but it appears from the resolution of 1st February 1897 that in Saugor private charity relieved poverty-stricken persons who congregated in towns, and that in Damoh private charity maintained three poor-houses, two for 7 and one for 2 months. Also that in Jabalpur a poor-house was started by private charity in September, which in that month took in 673 inmates. Some considerable remissions and suspensions of land revenue were allowed in all three districts, but the amount which the Chief Commissioner ordered to be collected seems to be the utmost amount which could be possibly expected to be realised. That seems to have been the view taken by the Government of India from their

* NOTE.—The following explanation of the closing of this test work is given in paragraph 23 of the Final Report. "* * * and in addition a test work was opened in April in the neighbourhood of Damoh, a minimum wage being prescribed. The work was open for 30 days, but directly ordinary Public Works road work was offered in the vicinity on contract terms, the people forsook the test work, and the occurrence of a local holiday reduced numbers from 700 to 132. Thereafter it was decided by Sir John Woodburn to resort to ordinary works only. Numbers on these rose from 1,500 to 2,000, but no further. * * * * *."

remarks in their letter of 24th September 1895 to the Chief Commissioner, but with reference to the good prospects of the *kharif* on the ground they accepted his proposals as sufficient.

Insufficiency of the measures adopted in 1895.

271. It seems to us that dangerously little was done by Government in all three districts in 1894-95, and that the theory that though privation prevailed among the poorer classes it was not acute, was too sanguine. The high death-rates tell another tale. It may be argued also that if seed taccavi had been pressed on the people, and freely given, the area of the *rabi* harvest of 1895-96 would not have fallen off to the enormous extent shown by the table in paragraph 264.

The agricultural year 1895-96.

272. We now come to the year 1895-96. The *kharif* harvest in the ground, upon the good prospects of which the Government of India relied in their letter of 24th September, was withering from early stoppage of the rains when they wrote. This was the first year of drought. Before this, excessive and often ill-timed downpours and blight and rust had done the mischief. In December Mr. C. J. Lyall succeeded Mr. Woodburn as Chief Commissioner. It was known at this time that the *kharif* outturn had been very poor in all three districts, exceedingly poor in Jabalpur, where the *kharif* revenue had to be largely suspended. But it was thought that the *kharif* crops would supply the labouring classes with food for a few months, and that the real crisis of danger would come after the *rabi* harvest and would depend upon its character. (Resolution of 1st February 1897.) It seems to have been thought that practical action could be deferred till full information as to the outturn of the *rabi* was obtained and digested. There seems to have been no sufficient reason for this hesitation, as it must have been well known that owing to drought at sowing time and deficiency of seed, the area of the *rabi* must at best be small. It ought to have been known also that the death-rates had been very high for some months past, particularly in Saugor and Damoh (table in paragraph 19, resolution, 1st February 1897), and that there was very little sign of the great drop which regularly occurs in December-January in mortality figures. In February severe want and actual starvation were reported in Damoh, and the same with epidemic diarrhœa added in the Marwara tahsil of Jabalpur. (Paragraphs 9 and 20 of the resolution of 1st February 1897, and paragraphs 8 and 9 of Messrs. Anderson and Carey's joint report of 8th March 1896.) The death-rate in this month is ordinarily very low, but this year it was at the rate of 53·19 per annum in Saugor, 54·28 in Damoh, and 74·44 in the Marwara tahsil of Jabalpur. Sixteen thousand people came with a rush to the railway works in the Marwara tahsil in the middle of this month,* but many were too weak to earn a living, and many quite unfit for any work (Messrs. Anderson and Carey's report). Probably about a third of these people were from the native states to the north of the Central Provinces.

Line of action adopted in 1896.

273. At the end of this month (February) the Chief Commissioner came to Jabalpur to examine the situation and decide on a line of action. On the 10th March he held the conference, the proceedings of which, with Messrs. Anderson and Carey's

* NOTE.—It is stated that in Marwara there was a large influx of destitute persons from neighbouring native states who came in search of employment, in addition to local beggars from other parts of the district. A widespread rumour had prevailed that work would be begun on the railway in October, and in November the numbers who had collected were large. The railway work was not actually started till the beginning of January, and this period of enforced idleness probably accounted for the weak state of health to which many of them were reduced before employment was available.

memorandum and notes subsequently received, form the appendices to his letter of 13th June to the Government of India.

The line of action adopted (apart from opening the Government forests for fruits and roots, but not for free grazing) was to rely mainly for the relief of the poor upon the earth-work of the Katni-Saugor Railway, which had been started in the Jabalpur district in January and later in Damoh and Saugor. It was felt that this work was dangerously distant from some parts of these districts, so a few subsidiary road works and a municipal tank were to be presently started in suitable places in Jabalpur and Saugor, and in Damoh if found necessary. Private works or tanks were to be encouraged, but it was felt that they would be very few. None of these works were to be relief works under the famine code. They were all to be carried out in ordinary Department Public Works fashion by contractors. Very serious doubts were expressed in Messrs. Anderson and Carey's memorandum as to whether the railway earth-works would prove sufficient for the relief of any but able-bodied persons, and whether even they would earn enough to support children and dependants. The Deputy Commissioners were told to report whether the railway engineers of the Company could not get some of the contractors to employ gangs of weakly persons at low tasks, on the condition that Government should make good to the Railway the extra cost. This was afterwards reported to be impracticable. The proposal, as put, may have been difficult to accept, but arrangements might have been made with the Agent of the Company as was done later on in other provinces, to take over parts of the railway cuttings and embankments as relief works, to be carried out in charge of the officers of the Central Provinces Department of Public Works. If the severity of the distress had been properly recognised such an ideal opportunity of establishing regular relief works would not have been lost.

The subsidiary road works were started by the Department of Public Works in Jabalpur in the middle of April, and in May in Damoh and Saugor. At the end of May there were 5,031 persons on these works in Jabalpur, 2,000 in Saugor and 700 in Damoh.

As to gratuitous relief, it was thought sufficient to determine to undertake to maintain at the expense of Government two poor-houses in Jabalpur and one in Damoh. None were thought necessary in Saugor. These poor-houses were actually taken over by Government at Jabalpur and Damoh in November. At the end of June there were 1,075 persons in the Jabalpur poor-houses, including a third started by private charity at Sehora, 497 in the Damoh poor-house, and 800 in a poor-house at Saugor, which the Deputy Commissioner had found it necessary to open on the 22nd June at the cost of private charity, and which was taken over by Government on the 1st December.

Inadequacy of relief afforded in 1896.

274. The numbers employed on the railway and roads and tanks, and supported in the poor-houses from the 1st May to the end of the year 1895-96 are given in the resolution of 1st February 1897. The numbers on the works were never very large, and in considering these numbers it must be remembered that many of the workers on the railway were not men of the three districts, but outsiders from native states. The proportion of outsiders was sometimes as great as 33 per cent.

From the Commissioner's summaries of district reports for April and May and for June, July, August 1896, and from facts mentioned in the resolution of the 1st February 1897, it seems clear that wide-spread distress existed from May

1896 to the end of the year, often in a very acute form, and that, as might have been expected, the railway and road works, carried on as they were on the contract system at ordinary rates, were not efficient means for relieving a large number of the distressed. If direct testimony of their inefficiency is required it is to be found in the Deputy Commissioner of Damoh's letter No. 3236 of 30th November 1896, and enclosed memorandum, which was forwarded to the Chief Commissioner under cover of the Commissioner of Jabalpur's letter No. 9866, dated 23rd December 1896.* It is frequently mentioned in the monthly summaries that many people would not go to these works, and wandered about begging, flocked into the towns, and that some though infirm would not enter the poor-houses. This has been attributed to their innate dislike to work, but their conduct when regular relief works were subsequently opened does not support this explanation. Moreover, many of the works were closed when the rains began. The following table shows the mortality of the three districts for the calendar year 1896, as compared with the mean ratio for the previous five years:—

District.	Ratio per 1,000 for 1896.	Mean ratio for previous 5 years.
Saugor	72·63	39·33
Damoh	88·28	37·93
Marwara (part of Jabalpur)	67·90	35·39
Jabalpur	61·73	36·90

* *Extract from a letter from the Officiating Deputy Commissioner, Damoh, to the Commissioner, Jabalpur division, No. 3236, dated Damoh, the 30th November 1896.*

* * * * * I therefore write to say that from what I see and hear I have no hesitation in expressing my opinion that relief works are already urgently needed, and should be pushed on with all possible speed. In this view I may of course be mistaken, but I think that the works which I propose to open immediately will show the contrary.

My reasons for coming to this conclusion may be briefly summed up as follows:—

(I) My personal observation in the poor-houses and on the high roads, and results of my conversations with tahsildars and others.

(II) The crime statistics.

(III) The number of deaths caused or accelerated by starvation, of which I am convinced that the returns give a most inadequate idea.

(IV) The fact that frequent complaints are made of fields and standing crops being looted, a state of things which will render nugatory the benefits of the already meagre harvests, unless it is checked by giving employment to those who are driven by hunger into crime.

(V) That early starting of relief works will check the emaciation of the inhabitants and thus be economical besides beneficial and may render unnecessary any system of village-to-village relief.

* * * * * * * * *

Extract from Memorandum of proposed scheme for famine relief-centres and famine relief-works in the Damoh district, submitted to the Commissioner, Jabalpur division, with Deputy Commissioner's letters Nos. 2914 and 2975, dated the 31st October and 10th November 1896, respectively.

* * * * * * * * *

The circumstances of the district are peculiar in several ways. Firstly, the northern and southern portions are extremely jungly and hilly, and are peopled for the most part with aboriginal tribes, such as Gonds, who lead a forest life, being for the most part ignorant of agriculture except for the cultivation of a few coarse grains, and are habitually on the bare margin of subsistence. Secondly, the district is not a rich one at the best of times, and four successive bad years have reduced it into a desperate condition requiring heroic remedies. Thirdly, the construction of the Kutni-Saugor Railway has drawn off most of the able-bodied men, leaving the weaker portion emaciated with want and unable to earn a living wage on the railway work under the contracts and "payment-by-result" system there prevailing. Many hundreds are said to have gone to the railway for employment and to have returned in despair unable to make enough to support themselves. It is for this weaker and already emaciated portion of the population that relief works are required, and I venture to think that, in spite of the remarks contained at the portion of page 6 of the North-Western Provinces Government Resolution, dated Naini Tal, the 20th October 1896, and of the general recommendation to start relief works first on the harder forms of labour contained in the Secretary, Public Works Department, printed Circular letter No. 270—667J, dated the 24th October 1896, the circumstances of this particular district require a light form and lenient conditions of relief labour, until the people have settled down to work and had time to recover something of their original strength. Fifthly, the neighbourhood of numerous native states, (in which the measures of relief alleged to have been adopted by the various Darbars are reported to have had no practical result whatever) has caused an immense influx of starving wanderers from these parts into the district and largely aggravated the difficulties of the situation.

* * * * * * * * *

The mortality from February to July, a healthy time of the year, was exceedingly high in all three districts. For August and September it was appallingly high. In the Commissioner's summary for the month of May the following remark occurs:—

"The mortality has been high; this is inevitable in times of distress when the poor are insufficiently fed, and succumb the more readily to disease."

Conclusion arrived at by Commission.

275. No doubt mortality must be high in time of famine, but a mortality like that which occurred in this case can only be treated as inevitable if all the methods and resources of famine relief have been brought into play. It seems to us that the history of the two preceding years confirms the conclusion which the Chief Commissioner's letter of 13th June 1896 and its appendices of themselves suggest. That conclusion is that the high local authorities failed to grasp the situation which existed in the latter part of 1895 and the beginning of 1896. We have compared the facts for these three districts with the circumstances in the adjacent districts of Bundelkhand, which led the Government of the North-Western Provinces to consider that famine existed there in the spring of 1896, and we consider that the distress requiring relief was equally great in both territories.

More relief should have been given in 1895 and in 1896.

276. We are disposed to think that some relief works and Government poor-houses ought to have been maintained in the three districts in the year 1894-95, and have no doubt whatever that at the very beginning of 1896 (when the failure of the *kharif* and the deficiency of the *rabi* were certain), the whole machinery of famine relief ought to have been brought into play. We think if that had been done much more distress would have been relieved, and a considerable number of lives saved.

Evidence confirming the Commission's conclusion.

277. Our conclusion that regular famine relief operations ought to have commenced in the Jabalpur division from the beginning of 1896, at latest, is also confirmed by the replies given to questions on the point by most of the witnesses examined by us at Jabalpur, and by Surgeon-Colonel Hutcheson's memorandum on public health in the years 1896 and 1897, and previous years, which is included as appendix III in the Central Provinces famine report. The remarks of medical officers quoted in this memorandum at pages 37 and 38 regarding the health of prisoners entering the Saugor and Damoh jails in 1895 and 1896 deserve particular notice. It may be added that from the evidence of several reliable witnesses and from a comparison of the death-rates of 1896 with the quinquennial mean in the table at page 19 of the memorandum, and from the facts stated in the correspondence of 1896 as to previous harvests, grain riots, and other crime of famine type, we are led to the conclusion that some regular famine relief was required in 1896 in the Mandla, Seoni and Balaghat districts, in parts of Bhandara and Bilaspur, and in Narsingpur; and that in the province generally there was considerable privation among the poorest classes. The proportion of deaths in classes given in the table at page 13 is evidence that the high death-rates of 1896 were connected with privation, for the death-rate of the outcaste classes, which is usually about 17 per cent. higher than that of the superior classes, rose to 44 per cent. higher in 1896.

Desirability of starting relief operations promptly.

278. It is no doubt important not to start famine relief unnecessarily, but on the other hand the history of the Central Provinces for 1895-96 shows the great danger of staking too much on the hope or chance of coming harvests turning out good, and compensating for past bad ones. If regular relief operations had been begun early in 1896 in the worst districts, not only would much distress have been alleviated, but the experience gained, and the organization perfected, would have been invaluable in enabling the local Administration to deal properly with the general distress which followed the failure of the harvests of 1896-97.

The agricultural year 1896-97.

279. We now come to the agricultural year 1896-97. At its very commencement on the 23rd October 1896, the Chief Commissioner reported that another and almost universal stoppage of the monsoon rains had occurred, that prices had gone up with a bound, and that general distress, deepening into famine in places, was impending. Regular famine relief was begun in some districts in December, and in his Secretary's letter of 16th December 1896 the Chief Commissioner submitted a report and forecast for all the districts of his province, and an outline of his plan of operations.

We insert here for reference an excellent table taken from this report, as it shows clearly the relative condition of the districts in respect to loss of harvests and the severity of the crisis in many of them.

Districts.	Average outturn of past three years (100=full crop).	Average outturn of worst two successive years in the past three.	Average outturn of 1895-96 (full crop=100).	Average anna outturn of current kharif.	Proportion of kharif to rabi area.		Proportion of normal rabi area sown.	Proportion germinated.	Present prospects of spring crop.
					Kharif.	Rabi.			
1	2	3	4	5	6	7	8	9	10
A. Districts.									
Nimar	72	71	76	7 to 8	87	13	56	25	Poor.
Chhindwara ...	77	76	66	5	58	42	87	69	Good.
B. Districts.									
Wardha... ...	58	53	70	8	60	40	87	95	,,
Nagpur	63	57	75	8	50	50	87	75	,,
Chanda	49	48	60	8	66	34	75	75	,,
C. Districts.									
Raipur	79	77	54	4	69	31	25	75	,,
Bilaspur			39	5	64	36	31	81	,,
Sambalpur ...			70	10	98	2	20	50	,,
Betul	67	65	48	4	61	39	75	85	Poor
Mandla	71	69	43	3	67	33	25	87	Good.
D. Districts.									
I—Poor.									
Seoni	62	61	59	4	48	52	60	90	,,
Narsingpur ...	60	54	67	6	37	63	50	50	Fair.
Hoshangabad ...	58	49	59	5 to 6	27	73	75	96	Poor to fair.
Bhandara ...	53	50	40	6 to 7	63	37	85	90	Good.
Balaghat ...	57	52	48	3	75	25	25	75	,,
II—Bad.									
Jabalpur ...	55	48	45	5	48	52	66	87	,,
Damoh	47	43	41	6	46	54	60	100	Fair.
Saugor... ...	47	35	47	5 to 6	38	62	31	100	Bad.

This forecast correctly recognised certain facts, which, however, do not seem to have always been fully borne in mind in measures subsequently taken. These facts were as follows:—that the coming *rabi* harvest (much below the normal in area) could afford no material relief in the tracts mainly devoted to rice cultivation, whatever it might do for a time elsewhere. That the aboriginal tribes would require special care, even where there had been only one bad failure of crop, as they lay up no stores against accidents. That the wild fruits and roots of the jungle tracts can only afford relief in the hot weather. That though the *rabi* harvesting and the collection of the *mahua* flower would in many districts cause a fall in the numbers on relief in March and April, yet that the resources so earned would be soon exhausted, and that this and the commencement of the monsoon rains would then drive the people from their homes and the jungles to the relief works and the poor-houses. That in short the numbers on relief, if they fell in the spring, would be larger again in May and continue at the same height till the early *kharif* harvest might be reaped in August or September.

Plan of relief operations.

280. The outline plan of relief operations was small works to be supplemented as soon as possible by large, where small works alone were insufficient, and for gratuitous relief, poor-houses and relief centres, to be followed later on, when and where distress may be acute and general, by organized village relief. In their reply the Government of India called for estimates of numbers on relief, and expressed doubt as to the policy of putting off the organization of village relief, and relying upon relief centres as a substitute.

In his Secretary's letter of 12th February 1897, the Chief Commissioner gave an estimate of numbers and a more detailed forecast. Subsequent experience showed that this was too sanguine, particularly in Bilaspur, Raipur, Betul, and Bhandara. There had been two bad successive failures of the rice harvest in Bilaspur and Raipur, and the *rabi*, which is never important, was only growing in about a quarter of its normal area. It ought, we think, to have been foreseen that this must cause severe general distress in these two districts, and especially in the former. As to village relief it was explained that relief centres were only a temporary measure, but the detailed proposals for each district in the same letter show that, when it was written, village relief had only been organized and put in force to some extent in Jabalpur, Saugor and Damoh; that in all but three of the other districts of the province even the organization had not been commenced; and that except in Balaghat and parts of Betul and Bilaspur the organization was thought either not likely to be wanted or at any rate not wanted for the present.

The three exceptions where organization had been commenced were Mandla, Narsingpur, and Raipur. As to Mandla, the organization was intended to be partial, relief centres being expected to be a suitable permanent substitute for most part of this district and for the affected parts of Chhindwara. As to Narsingpur the Deputy Commissioner had begun the work, but the Chief Commissioner did not encourage him to complete it as he thought village relief would only be wanted in isolated tracts or particularly distressed villages. As to Raipur and Bilaspur, the Chief Commissioner in a letter of February 2nd had pressed on the Commissioner the importance of quickly giving village relief in all villages where emaciation or wandering were observed, or where death-rates had been lately high. As to other parts of these districts it was thought from the district reports that for the present the care of the poor could be safely left in the hands of the better to do residents.

281. There were no doubt great difficulties to be encountered in organizing village relief in the Central Provinces, especially in the jungle tracts; but we think the degree to which severe distress was already generally prevalent was not fully apprehended, and that on the general principles of famine relief, and on facts as shown by subsequent experience in the province, it would have been much better to attempt to organize village relief completely from the first in all or almost all districts. Even in Nimar (which in the letter of 12th February was treated as the least affected district in the province and only under observation), the Harsud tahsil, inhabited mainly by aborigines, was subsequently proved by experience and heavy mortality to be in a very bad way.

Village relief should have been organized at an early stage.

282. It does not seem to have been understood that, besides immediate and prospective relief to the destitute incapables in the villages, one great object of the organization of village relief is that it gives the district officer a knowledge of the real condition of the people generally, a power of inducing them to avail themselves of the various modes of relief provided, and a way of testing how far such modes are efficient which he cannot get otherwise. This is perhaps not surprising, as in most famines up to this time comparatively small prominence had been given to village relief. There was also evident, in our opinion, in respect to some districts, a dangerous disposition to trust too long to private charity, and to think that till it was ascertained to be entirely exhausted it was expedient for Government to rely upon it for the relief of destitute incapable persons.

Advantages of starting village relief organization.

283. The village relief dole was fixed in January 1897 at Rs. 2-8 per mensem for a man and Rs. 2-4 for a woman, and proportionately less for children, and did not apparently vary with prices, though in some districts proposals to raise the rates a little were subsequently sanctioned. Again by the Chief Commissioner's orders passed at various conferences in July, a rule was added restricting the total amount to be given to any family to rupees 5 per mensem however many members it might contain. The highest prices of cheapest grains varied at different district head-quarters from 6 to 9 seers per rupee, and were often, if not generally, much higher at out-stations and in villages. These doles must often therefore have not sufficed to buy more than 8 or 9 chattaks a day, instead of the 14 or 13 chattaks grain equivalent of the minimum ration, which according to the local code the dole ought to suffice to buy. From the reports of district officers in the monthly summaries as to the condition and behaviour of the recipients, and from much of the evidence we have taken, there is reason to fear that the relief so given was often insufficient to properly maintain life and health, particularly as the recipients were frequently in an emaciated condition before they began to get the dole. After the rains had set in, and the numbers on relief works had fallen off, signs of emaciation were accepted as sufficient reason for admitting a person to village relief even though he might be considered capable of light work. Before then the rules as to eligibility seem to have been strictly construed.

The village relief dole.

284. In regard to relief works the first question to be noticed is the scale of wages. In the orders of 26th December the classification and scale laid down for task-workers and dependants by the North-Western Provinces Government in its orders

Scale of wages on relief works.

of 5th December 1896 were adopted. The classification practically restricted the maximum wage which a large proportion of the relief workers could earn to the D or minimum wage of the local code, and there is evidence that whether from their own fault or otherwise, many if not the majority of the B or digger class earned little more. The grain equivalent wage of working children was also reduced by these orders to a little less than two-thirds of that allowed by the local code. The allowances to dependants, adults or children, were also reduced. In the case of the children dependants the reduction was clearly excessive, but in practice the effect in their case was not important, for cooked rations on a more liberal scale than the allowance were soon substituted. The officers responsible for the conduct of the works and payment of this D wage have generally reported that it seemed to them practically sufficient to maintain health and strength, but of the witnesses we examined some declared it to be always insufficient for a working wage, and many others were of opinion that the most that could be said for it was that it could keep workers fairly strong and well for a time if they were not below par when they began. In the poor-houses it was generally thought insufficient by the medical officers even for people in fair health. This is the effect of Drs. Hutcheson's and Silcock's opinions in appendix IV of the report, and of the evidence given on the point by several witnesses who had charge of poor-houses. The Chief Commissioner strongly defended the sufficiency of this D wage when it was questioned by the Government of India, and reported in his letter of 28th October 1897 that experience proved that the workers often grew fat and saved money on it. As to saving money, experience shows that the wish to leave the works and anxiety for the future induces some natives of India to save out of any wage, but it is at the cost of their own health and that of their children. If people ever grew fat on this wage, we think it must have been due, as the Chief Commissioner suggested, to some cheap food, such as the *mahua* fruit, being temporarily available; but the *mahua* crop was over by the end of April, and the number of people who had stores of it to last much after that time must have been few. In our opinion it is, if unsupplemented, too low a wage to maintain for any time in proper health or strength people doing fairly hard work on relief works; and dangerously low if the people come to the works in a reduced condition as they frequently did in the Central Provinces.

Number of relief workers and dependants.

285. By the end of December the numbers of relief workers and dependants in the province were 109,802 and 4,819 respectively: at this time these were almost all in four districts of the Jabalpur division. The numbers for the province rapidly rose as relief works were extended to other divisions. By April every district had some works, and the numbers had risen to 386,945 workers and 75,323 dependants. The numbers in this month were very large in all divisions except Nagpur. In May they rose still higher and stood at the end of the month at 479,947 workers and 86,823 dependants. By the end of June they had fallen to 273,492 workers and 44,685 dependants.

This immense fall in numbers was due in part to the departure of cultivators to their homes when the first rain fell in the middle of June, and in part to closure of works, but it was mainly caused by the substitution for task-work under the code of piece-work of kinds very similar though slightly differing from those

tentatively introduced in the North-Western Provinces under the names of the intermediate or modified intermediate system. That this was the main cause is admitted; and it is proved by the fact that in the Damoh and Chhindwara districts, where owing to the opposition of the Deputy Commissioners, the system was not even partially introduced, there was a large progressive increase in numbers in June and July. The orders for these measures were contained in a general order in the Public Works Department of 15th May addressed to all officers of that department. This was somewhat modified by another circular in the same department of the 28th May addressed to officers of all departments, and by a circular to Commissioners of about the same date, recommending for adoption the measures adopted for the Nerbudda division at the Pachmarhi conference.

Reasons for introducing the intermediate system.

286. The reasons given for these measures were that there were a large number of able-bodied people on the works, not from absolute necessity, but to make a little money during the slackest season of the year: that it was extremely important to induce these people to return home before the rains to help to plough and sow the land for the *kharif* harvest: that owing to the difficulty of getting work-agents, the insufficiency of the supervising staff, and the crowds of people coming on to the works, it was difficult under the task-work system to get a fair amount of work out of the workers.

These orders were certainly well calculated to reduce the number of people on the works, for the piece-work rates were to be low and the piece-workers were to support their dependants out of their earnings, which, as might have been anticipated, it was afterwards proved they failed to do. Where the task-work system was continued, either for infirm gangs or for whole charges, a strict task was to be enforced, and only the minimum wage allowed. New applicants were also to be refused work if able-bodied. This last order was by a subsequent circular of July 2nd declared to be meant to be temporary, and to cease when *kharif* sowings were over.

Intermediate system introduced in almost all districts.

287. In adopting this policy of intermediate piece-work and of inducing the people to leave the works at or before the commencement of the rains, the local Administration followed precedents set by the Government of the North-Western Provinces. But the latter Government restricted the system when first introduced to scarcity as opposed to famine districts, whereas the Administration of the Central Provinces made no such distinction at any time, and the system was, as a matter of fact, introduced to a large or small extent in many of the most acutely affected districts, and in tracts to which it was least suited, owing to the workers belonging mainly to the aboriginal tribes.

Dislocation of relief occasioned by change of system.

288. These measures of change of system and closure of works were only partially carried out, owing to the discretion exercised by local officers and the early recognition of the fact that they were premature. Large numbers of the people who returned to their villages could get no employment, or at any rate none at a wage which would support their families, and had to return to the works. This was attributed to a break in the rains, but would we think have happened to a large extent in any case. There was therefore a great recovery of numbers in most districts in

July. But from the evidence in the monthly reports and summaries, it seems clear that these measures led to an unfortunate dislocation of relief. They were introduced at the hardest time of the year, when the resources of the people were of necessity beginning to be most exhausted, and were inconsistent with the forecast made at the beginning of the famine relief operations. They may have had some small part in promoting the intense crisis of July in Bilaspur, and certainly seem to have been a cause of the invasion of Berar by half-starved people from Betul and elsewhere in the same month and in August; and they may, it is to be feared, have had some part in causing the further deterioration of physical condition, which, as the monthly summaries show, many district officers noticed to be generally commencing about this time, among the people on the works, and at their homes.

Introduction of new system of payment by results.

289. Early in August by a Public Works Department circular of August 7th, orders were issued to officers of all departments for the general abolition, except on a few charges, of the piece-work systems. It had before this been recognised in the North-Western Provinces that the contractor element in this system made it generally unsuitable for relief purposes. This was confirmed by the experience of July in the Jabalpur division and some other parts of the Central Provinces when contractors were used, and it was also proved that, whether contractors formed a feature of the system or not, the piece-workers could not or did not support their dependants, whose condition, the children in particular, was often very bad. It was found also that practically a number of people were put on piece-work who were not physically fit for it. The new system substituted by the circular of August 7th, though it had an appearance of great severity, was probably better for relief than the one it superseded, for it gave doles or rations to all dependants, and in respect to workers directed that in cases of any doubt as to physical capacity for piece-work, they should be allowed the option of task-work. On the other hand, with the old motive of deterring able-bodied persons from remaining on the works without absolute necessity, every undoubtedly able-bodied person was to be paid purely by results, getting only the D wage as a maximum if he did a full day's work, and proportionately less for short tasks. In this way the D wage, which by the code was intended for weakly persons on very light or nominal work, became the maximum wage for the able-bodied. But there is good reason to believe that very few got more under the intermediate systems, and by the new rules those who had dependants were relieved of the charge of their support.

Exception taken by the Government of India to the payment by result rules.

290. The Government of India took objection to these new rules in a letter of 28th August, and the Chief Commissioner modified them in some respect in September. As explained in the monthly report for August, and in the Chief Commissioner's letter to the Government of India of 28th October, they were not widely acted on except in four districts of the Jabalpur division. In most districts the Commissioners suspended their introduction, or reverted to task-work. Where introduced they generally led to the people, particularly the able-bodied, leaving the works in large numbers. Some officers concluded that this was proof that these people did not really require relief, but the conditions of the system were too stringently repellent to make this conclusion a safe one.

291. One lesson to be drawn from the above history of relief work operations in the Central Provinces seems to be that changes in system of relief works are in themselves dangerous when distress is acute and works are crowded. New rules, even if good in themselves, are not likely to be properly carried out in such a crisis. Another lesson is the danger of attempting while famine or severe scarcity is still prevalent to drive able-bodied people off the relief works, on the supposition that their labour is required for cultivation, and that they will stay unnecessarily unless induced by some kind of pressure to leave. The measures taken in respect to the able-bodied affect the weakly as well, and there is no security that those who get employment will get it at rates which will enable them to support their dependants. The Famine Commissioners indicated that at the end of a famine some pressure may be legitimately used if the relief workers show a tendency to hang on unnecessarily, but in the present case the pressure was applied when the famine was entering upon its severest stage. There is in our opinion little evidence that any considerable number of people of any class are disposed to stay on relief works, when they have their own work to do at home, or when a living wage is to be got elsewhere. Cultivators of the petty landowner and tenant class are seldom numerous on the works, and are sure to leave when the business of cultivation demands their return. Agricultural labourers also will, we believe, generally leave as soon as there is a good chance of obtaining employment in the villages. The reasons why people of this class were disposed to remain on the works in the Central Provinces in spite of the low wages given, seem to be those reasonable ones mentioned in paragraph 117 of the Central Provinces famine report. The local Administration seems to have believed that the large numbers who flocked to the works in April and May must have included many who came without necessity, but the subsequent history of the year seems to indicate that the distress was much more acute and general than the local Administration perceived it to be.

Changes of system to be avoided when distress is acute.

292. During the years immediately preceding the famine of 1896 97 suspensions and remissions of land revenue amounting altogether to Rs. 15,58,995 were granted in the Jabalpur division. By the 1st of October 1896 the total remissions amounted to Rs. 9,63,362, while the sum under formal suspension, excluding unsuspended arrears, stood at Rs. 4,92,108. The total demand of the province for the revenue year 1896-97 under Land Revenue and Provincial rates taken together was Rs. 90,27,922, and of this sum Rs. 4,40,253 was entirely remitted during the year 1896-97, while Rs. 26,52,382 was suspended. Of the amount suspended, a very considerable proportion was eventually converted into remissions after the famine had closed. Liberal taccavi advances were also made under the Agriculturists' Loans Act and the Land Improvement Loans Act. Sums amounting to Rs. 19,59,314 were advanced under the two Acts, of which Rs. 15,69,196 was under the former, and in addition over eleven and a half lakhs of rupees was advanced as famine loans without interest. This liberal treatment must have done much in relieving distress among the smaller landowners and tenants. But nevertheless in the worst districts there seems reason to believe that the famine has most seriously thrown back the agricultural condition and that these districts may take long to recover. The following table exhibits the decrease that has occurred

Suspensions and remissions of land revenue.

in the net cropped area of these districts. The figures for 1897-98 have been taken from the table given in paragraph 232 of the local Administration's final report, while those for previous years are taken from the Agricultural Statistics of British India, 1891-92 to 1895-96.

District.	Year immediately preceding the cycle of bad harvests and before it began to tell.	Net cropped area in the year mentioned in column 2 in acres.	Net cropped area in 1897-98 in acres.	Decrease in cropped area in acres.	Percentage of decrease in 1897-98 as compared with the area under crop in the year mentioned in column 2.
Saugor	1893-94	1,015,570	754,439	261,131	25
Damoh	1893-94	556,473	433,283	123,190	22
Jabalpur	1893-94	1,099,855	889,307	210,548	19
Mandla	1895-96	598,955	445,719	153,236	25
Seoni	1893-94	726,091	574,340	151,751	20
Balaghat	1894-95	452,336	332,418	119,918	26

Of other districts that were badly affected, Bhandara shows only a decrease of 8 per cent. since 1894-95, while in Raipur and Bilaspur the decrease since 1895-96 is inconsiderable. We are unable to make the comparison in the case of these two last districts with the year before the bad harvests began owing to want of distinction between *zamindari* and *khalsa* areas in earlier years.

Examination of mortality returns.

293. In forming an estimate of the degree of success obtained in the saving of life and relief of distress, the mortality returns are of course most important guides.

Surgeon-Colonel Hutcheson, Sanitary Commissioner for the Central Provinces, has dealt with the subject of the public health very fully and ably in his memorandum which forms appendix III of the famine report. He shows that the decennial mean for the province (1881-90) was 32·44, and that for the next three years the mortality was about normal or below it. For the three following years the provincial death-rates were as follows:—1894, 37·22; 1895, 36·75; 1896, 49·31. It was in the agricultural year 1893-94 that bad failures of harvests began in many districts of the Central Provinces. Dr. Hutcheson attributes the deterioration of the public health in these three years mainly to gradually increasing privation, and for the reasons he gives this seems to be a safe conclusion. It may be added that if the tables of estimated annual outturns of crops in the Chief Commissioner's reports of 13th June 1896 and 16th December 1896 are compared with the table in paragraph 3 of Dr. Hutcheson's memorandum, it will be seen that the districts which show in these three years a great rise of death-rate over their own decennial mean and over the provincial rate for the years, are the districts in which there had been the greatest failure of crops in the year or previous years. The correspondence is with two or three exceptions very close—particularly if allowance is made for the fact that a very bad failure of even a single harvest is sufficient to cause severe distress in tracts where that particular harvest is the main source of food for the year.

294. The following table taken from page 19 of Dr. Hutcheson's memorandum compares the death-rates of the years 1896 and 1897 with the mean annual rate for 1891-95. That mean differs little from the decennial mean for 1881-90, though it is higher in a few districts :—

Examination of mortality returns—continued.

Statement showing the ratio of deaths per thousand of the population in each district of the Central Provinces for the quinquennial period 1891-95 as compared with the ratios of mortality in 1896-97.

District.	Mean annual death-rate from 1891-95.	Death-rate in 1896.	Death-rate in 1897.
Saugor	39·33	72·63	87·25
Damoh	37·93	88·28	66·83
Jabalpur	36·55	63·16	72·15
Narsingpur	41·26	55·48	78·48
Hoshangabad	39·18	44·72	64·79
Nimar	39·81	48·62	59·61
Mandla	31·53	73·68	98·36
Betul	36·21	37·98	73·54
Chhindwara	34·16	44·81	51·89
Seoni	30·60	61·94	71·57
Balaghat	30·50	49·99	86·95
Bhandara	31·40	36·64	60·78
Nagpur	31·80	37·40	49·97
Wardha	38·00	46·23	58·08
Chanda	31·46	36·61	41·58
Raipur	31·93	42·14	78·55
Bilaspur	28·30	47·54	95·54
Sambalpur	28·51	30·39	30·22
MEAN ...	33·76	49·31	69·34

The only district which retained in both years a normal death-rate is Sambalpur, in which there was no failure of harvests. The only district (excepting Sambalpur) in which the death-rate of 1897 was less than that of 1896 was Damoh. It had the highest death-rate of all in 1896, and the tenth place only in 1897. The percentage of the population on relief of all kinds in 1897 was highest in this district, and in particular the proportion on village relief was comparatively very high. Jabalpur came close to Damoh in relief of all kinds and had specially large village relief, and this probably explains the small increase of its death-rate in 1897. Of the figures for the other districts, it may be said that they correspond closely with the degree and extent of distress due to scarcity known to prevail.

Examination of mortality returns—continued.

295. The following details of causes of mortality and ratio of deaths per 1,000 from each cause in 1897 are taken from Dr. Hutcheson's memorandum :—

Cause.	Ratio of deaths per 1,000 of population.	Decennial mean per 1,000.
Cholera	6·01	1·66
Small-pox	0·38	0·63
Fevers	40·98	19·12
Bowel complaints	8·53	2·66
Injuries	0·79	8·37
All other causes	12·64	
All causes for the year	69·34	32·44

It will be seen that the proportion of deaths attributed to cholera and bowel complaints was more than three times above the normal, and that under "other causes" there was a considerable excess. Under small-pox and fevers the proportion was nothing unusual. Dr. Hutcheson's tables and diagrams also show that in respect to time of prevalence of particular diseases and of rise and fall of mortality the monthly death-rates generally followed the normal course, though the proportion of cholera was somewhat higher than usual in the first-half of the year, and that of bowel complaints and fever in the period from June to October.

Special inquiry as to the heavy mortality.

296. A special inquiry by testing in the villages the returns for selected tracts was made into the causes of the heavy mortality of the monsoon months of 1897. The object was to test the theory which had been advanced that it was due to fever of a specially malignant type. This theory was not supported by the general tenor of the replies. Almost all the medical officers employed agreed in holding that the fever was ordinary malarial fever, which, though it attacked all classes more or less, was specially fatal only in the case of those who had suffered from privation. Many of the medical officers attributed a large number of the deaths returned as fever to diarrhœa and dysentery. The civil officers employed, for the most part, agreed with the medical officers. It is of course patent that the village constables through whom these returns are collected, are quite incapable of a correct diagnosis. When fever is prevalent they are apt to return too many deaths as due to fever, and when cholera is about any death with some choleraic symptoms is likely to go down as cholera.

The view taken by the medical officers who made the special inquiry seems to be confirmed by the summary of medical officers' monthly reports given in paragraph 58 of Dr. Hutcheson's memorandum. These reports were based on their observations from week to week of the crowds of sick people around them. In some districts the largest proportion of deaths during this monsoon period was

said in these replies to have occurred among people, who, though hard pinched, were not quite poor enough to have been willing to go on the relief works or to be held entitled to get village relief. But in many districts the number who died on relief works, or after leaving them, or while in receipt of village relief, was shown to be very remarkable.

Degree of accuracy of vital statistics.

297. Dr. Hutcheson writes as follows in the latter part of paragraph 65 of his memorandum :—

"It is important to quote the remark of the Sanitary Commissioner, Madras, on the mortality returns for 1877 with regard to their presumable accuracy. 'Great as the increased mortality as shown by the registers is, it must be remembered that the registration from causes connected with the famine was more imperfect than usual, and that the figures represent relative and not absolute mortality.' On the other hand, since 1877, the accuracy of registration has increased, and owing to the instructions issued by the local (Central Provinces) Administration regarding the need for precise information, the registration of births and deaths was presumably as accurate as if not more so than in ordinary years"

There are several quotations in the summaries attached to the monthly famine reports which indicate that some officers of experience were from time to time of opinion that during the acute stage of the famine and in the worst districts the returns of deaths were more than usually below the mark. This opinion was also expressed by some of the witnesses who came before us. From the nature of things we think this must have inevitably occurred to a considerable extent in districts where the police and village constables were much overworked, where the village societies were much disorganized, and people wandered away, or took to living in the jungles. All these circumstances prevailed in some districts of the Central Provinces.

Reliable figures of deaths from starvation not available.

298. In paragraph 204 of the local Administration's famine report it is said that the figures available of deaths due to starvation do not admit of useful examination. In this opinion we entirely agree, and it is probably more or less true of the similar figures for other provinces. The first effect of specially instructing the police and village constables to be careful to report all deaths from starvation must be that a considerable number of doubtful cases will be included. When, however, a technical and limited definition of death from starvation is laid down, and special measures are taken to locally verify every case reported, it is certain that under Indian conditions great under-reporting will occur, however anxious superior officers may be to get at the true facts.

If some simple and not too limited definition of death from starvation could be laid down by the Government of India, and the police could be taught its meaning for guidance in ordinary years as well as in times of scarcity, it might be possible to secure more reliable returns under this head; but we recognise the great difficulty of framing such a definition and of securing with the returning agency employed a distinction between deaths from starvation and deaths from disease accelerated by privation.

General conclusion arrived at by the Commission.

299. While we recognise the great exertions of the Chief Commissioner and of the officers under him—exertions involving much exposure and incessant toil, and causing loss of life or of health to many officers—we regret to have to express the opinion that the degree of success in the saving of life and relief of distress

was not all that it should or might have been. In saying this we are not overlooking the many special difficulties which had to be met; most of these are mentioned in paragraph 189 of the final report and some were undoubtedly very serious. The particular points in which we think the measures of relief failed, and the lessons to be derived, have been indicated in our preceding remarks.

300. **Madras.**—In the Madras Presidency relief of distress was confined to four districts of the Deccan and to the two northern districts of Ganjam and Vizagapatam together with an outlying portion of the Godavari district. The distress in all these districts was due to failure of the crops consequent on deficient or unseasonable rainfall. In Ganjam and Vizagapatam the south-west monsoon of 1896 was up to the normal, but the succeeding north-east monsoon failed almost entirely; in the Deccan districts both the south-west and the north-east monsoons were deficient. Prior to 1896 there had been a series of favourable seasons in all the affected districts. In Ganjam particularly the four years immediately preceding the failure of the crops of 1896-97 had been years of prosperity, and it is said of this district that had it not been for what has been called "reckless exportation" of grain it might have been able to tide over the famine period without the necessity arising for measures of State relief. Vizagapatam had previously been supposed to be naturally protected from famine or scarcity, and speaking generally it may be said that at the outset the Northern Circars were in a better position to face scarcity than were the Deccan districts.

Affected area, and causes of the distress.

301. In Madras, if anywhere in India, the authorities should be on the alert when signs of distress are discerned, and there is no reason to doubt that on this occasion the impending scarcity was promptly foreseen and adequate preparations made to meet it. When the north-east monsoon failed in 1896, and this failure was followed by a rise in prices from normal to scarcity rates, accompanied by a cessation of the ordinary work on which the bulk of the people are employed, the local Government at once realized that scarcity or famine would have to be met and that no time was to be lost in making arrangements for affording relief to those who might be in need of it. So early as the end of July 1896 symptoms of danger had been detected in Anantapur, and from that date the season was closely watched. Test works were opened in the Deccan during the early weeks of November, and the population of the areas declared to be affected by the end of the month amounted to over a million. In the Northern Circars relief measures were not required or begun in Ganjam until February and in Vizagapatam until March, while in Godavari they were not started until May 1897. At the time of greatest pressure, in July, the total area of the province declared to be affected covered 26,073 square miles with a population of 5,674,000 persons. The early introduction of measures of relief was in our opinion a factor which contributed powerfully to the success in saving life and mitigating distress which attended the operations.

Approaching distress promptly discerned.

The measures taken.

302. In chapter IV of our report we have given a brief account of the management of the relief works under orders issued from time to time by the local Government. The conditions in respect to task and wage were, we think, at first too much the reverse of attractive, and though they were improved in some details on representations made by the Famine Commissioner, the numbers on relief works remained small till towards the end

The growth of the numbers on relief and the results of the concessions allowed by the Government.

of April. Till then the poorer classes seem to have generally showed a reluctance to attend the works without necessity which was in some places very strong, and to have contrived to subsist on their own resources and help from their neighbours. In April those resources must naturally have tended to be completely exhausted, and towards the end of this month the somewhat wholesale concessions contained in the orders of the Madras Government of 30th March began to come into effect. The result of these causes was a huge increase of numbers on relief. Later on the concessions were withdrawn, some in July and the rest in August, and this, coupled with the results of a good monsoon, in the shape of demand for agricultural labour and prospect of crops, rapidly sent the people to their homes.

Large measure of relief afforded.

303. The following table, compiled from figures in the final famine report, shows the average numbers on relief works and on gratuitous relief in each month:—

Table showing numbers on relief works and in receipt of gratuitous relief in each month.

Months.	On Relief Works.		On Gratuitous Relief.		Months.	On Relief Works.		On Gratuitous Relief.	
	Deccan Districts.	Northern Circars.	Deccan Districts.	Northern Circars.		Deccan Districts.	Northern Circars.	Deccan Districts.	Northern Circars.
1896.					1897—contd.				
November ...	22,355	...	1,348	...	May ...	218,864	25,164	26,423	24,208
December ...	21,458	...	803	...	June ...	312,091	43,336	52,979	56,628
1897.					July ...	455,097	67,906	102,700	112,795
January ...	23,117	...	1,841	21	August ...	409,166	39,016	100,967	69,973
February ...	44,318	...	3,474	361	September ...	239,672	12,935	67,273	19,306
March ...	66,088	3,072	3,931	860	October ...	62,756	1,693	23,709	3,738
April ...	120,420	11,747	8,262	5,682	November ...	...	...	811	...

These figures indicate that on the whole a very large measure of relief was afforded, and at the same time reflect with tolerable accuracy the effect that the orders issued and other causes mentioned above had on the numbers attending relief works. The concessions made by the orders of 30th March relaxed economy and discipline for the time, and must, we think, have brought on to the works persons not in absolute need of relief. But the number of such persons was probably not large, as though works were well scattered over the country, most of the people had to walk to and fro to them from very considerable distances. Moreover the hardships of life on relief works in the Deccan hot season are great, and must have acted in most cases as a test. The relief workers do not seem in our opinion to have at any time suffered to an appreciable extent from the vacillations in system of management. The evidence is almost invariably to the effect that the health of the workers was generally good throughout. We accept this view in spite of the fact that the orders of 30th March were issued after considering certain reports made by the Sanitary Commissioner who it seems had formed the opinion that between excessive fining and the C wage calculated on a staple not in ordinary use and that, too, unhusked grain, the condition of some of the workers was deteriorating. We have already in paragraph 123 discussed this criticism of the early operations. As to the D wage we are disposed to agree

with the Famine Commissioner that unless supplemented, as it often has been from other sources, it is insufficient for labourers doing more than a nominal task. But this wage does not seem to have been much used at any time. The insufficiency of the C wage, we think, was inferred from its quantity and composition rather than clearly proved by the ill-effects it had on those subsisting on it, though it is not surprising if it failed to keep labourers in robust health when calculated as it sometimes was on the price of *ragi* and accompanied as it also was on some works by severe fining. That the condition of some of the relief workers in the early stage of the operations was unsatisfactory is in our opinion probable, but we find no clear evidence that any serious deterioration of the health of the people did actually occur even at that time. There may, however, have been a danger of deterioration sufficiently imminent to justify hot weather concessions of some kind.

Gratuitous relief.

304. As we have shown in the preceding chapter, the administration of gratuitous relief in the Madras Presidency presents some peculiar features and differs from the policy adopted in other provinces. Taken with the large amount of relief given throughout on works, the amount of gratuitous relief afforded seems to have been enough to successfully save life and relieve distress in the Deccan districts, although for a time in a few places the incapable poor appear to have been hard pinched before village relief began. Several of the witnesses who came before us were of opinion that it ought to have begun earlier, an opinion in which we are inclined on general principles to concur. In the Northern Circars where some classes of the community declined to accept relief either on relief works or in the shape of cooked food until they were much reduced, and where the women of certain castes were never permitted to leave their homes, gratuitous relief in grain or money doles was eventually given on a liberal scale. The extensive use made of kitchens, particularly in the Deccan, is a satisfactory feature of famine administration in Madras.

Poor-houses.

305. There was little or no wandering of famished people, and in no district was it found necessary to have resort to poor-houses. The early initiation of relief works and the liberal amount of relief afforded in other ways obviated the necessity for opening poor-houses. If at one time excessive numbers were attracted to the relief works in the Deccan or were put on gratuitous relief in the Northern Circars, the fact that poor-houses and orphanages were not required should be taken into account. It is probable that in Madras those classes who in other provinces were relieved in poor-houses got food at the numerous kitchens that were opened. Though poor-houses, with hospitals attached, were not required on this occasion, we have little doubt that in the case of long continued famine resulting from more than one year's failure of crops they would be wanted in Madras as elsewhere.

Relief to weavers and jungle tribes.

306. The measures adopted for giving special relief to weavers by employment in their own craft were very effective and were fully adequate to meet the distress existing among people of this class. The relief of the jungle tribes in the Northern Circars and in Kurnool was a matter attended by much difficulty, but in spite of the difficulties to be overcome a fair degree of relief was afforded to these people. Where the difficulties were greatest, the efforts of the State were largely augmented by the charitable co-operation of private agency.

Indirect relief.

307. Large suspensions and remissions of land revenue were allowed. In the revenue year 1896-97 the collection of land revenue to the extent of over ten lakhs of rupees was suspended, this suspension being in respect of a demand reduced in consequence of the drought to 69½ lakhs from a normal demand of 96½ lakhs or by 28 per cent. And liberal advances amounting in all to 18½ lakhs were made under the Land Improvement Loans Act for the improvement of lands and under the Agriculturists' Loans Act for the purchase of fodder, seed-grain and cattle, and for other agricultural purposes. It cannot be doubted that these measures afforded immense relief of distress, especially in the case of the small *pattadars* who are often very poor and sometimes little better off than the labourers they employ.

Loss of cattle.

308. In some parts the mortality among cattle was great, though it appears to have occurred chiefly among the more worthless animals which it was not worth while to preserve. It does not appear that the loss of really valuable cattle was at all general. Some difficulty seems to have been experienced in throwing open to free grazing the Government reserves, as at first it was apprehended that such a course would interfere with the rights of those who had taken out grazing permits for the year, and although some partial concessions were granted in December 1896 it was not till the following May that all forest reserves in the Deccan were thrown open for free grazing. The Famine Commissioner in his evidence before us said that the order was then "too late to be of much use: cattle cannot march to the forests in a season when there is not a blade of grass, or a drop of water, on the route. The cattle, too, were too much exhausted to make a march of any kind." It is our opinion that if free grazing is to be given it should be given soon and widely to have effect, and we think that on a future occasion some plan should and could be devised for overcoming the difficulty of interfering with the claims of those who have already taken out permits.

Examination of vital statistics.

309. In examining the vital statistics of the affected districts during the famine period (October 1896 to October 1897), the Sanitary Commissioner, instead of using a 10 years average, which in the case of both the Northern Circars and the Deccan districts would have included previous famine periods, has selected two years (1894 and 1895) which in his opinion represent fairly normal conditions and give true data for comparison. The result of the comparison so made is exhibited in the following table:—

	Birth-rate per mille.		Death-rate per mille.		Death-rate excluding Cholera and small-pox per mille.	
Districts.	Famine period.	Average based on figures of two selected years.	Famine period.	Average based on figures of two selected years.	Famine period.	Average based on figures of two selected years.
Ceded Districts.	27·2	28·8	24·0	19·9	19·0	19·0
Northern Circars.	29·1	30·3	33·2	21·5	23·8	21·2

The diminution in the birth-rate for the whole thirteen months is insignificant, but the monthly details show that it was large in the last three months before which

time famine conditions could not be expected to materially affect the figures. The increase in the mortality is marked, more particularly in the Northern Circars; but it is not greater than might occur, and as a matter of fact sometimes does occur, in unhealthy years when there is no famine. Looking at the death-rates for each month it will be noticed that in the Deccan whilst up to June 1897 the ratio per thousand in the famine period was considerably below the so called normal, the increase in the months of August, September and October was sudden and marked; in June the ratio was 19·5 as compared with the normal ratio of 18·5, in August the ratio had risen to 45·2 as compared with a normal of 21·1, in September to 41·8 as compared with 19·7, and in October to 43·3 as compared with 18·7; that is to say, in each of these three months the mortality was more than double the so called normal mortality. But if deaths from cholera and small-pox are excluded it will be seen that there was no very great increase in mortality during the rains; in August, September and October the ratios given are 26·1, 25·1, and 27·3 respectively as compared with 19·1, 18·2, and 18·1, the so called normals. The returns for the Northern Circars are much to the same effect, though the increase in mortality there became apparent at an earlier stage than in the Deccan and was more marked. During the latter months of 1896 the death-rate throughout the presidency was low, and at that period there was no excess mortality that can be ascribed either directly or indirectly to famine. The following table compares the death-rate from all causes of the presidency and of the affected districts in 1897 with the decennial and quinquennial means :—

District.	Actual, 1897.				Average five years.	Average ten years.
	Cholera.	Small-pox.	Other causes.	Total.		
Kurnool	4·7	0·4	23·7	28·8	28·0	27·7
Bellary	3·5	0·5	27·2	31·2	25·5	25·7
Cuddapah	4·0	0·7	21·2	25·9	22·3	22·8
Anantapur	5·9	0·9	20·1	26·9	21·7	21·5
Ganjam	12·5	11·7	25·9	50·1	18·1	20·8
Vizagapatam	3·4	0·6	27·6	31·6	17·5	19·3
Godavari	3·8	0·05	18·95	22·8	20·9	...
Presidency	4·4	0·7	20·3	25·4	21·5	21·6

The increased mortality in the Deccan is not greater than in the circumstances might have been expected, while the rise in the death-rate in the Northern Circars is accounted for by the unusual prevalence there of cholera and small-pox. These diseases, however, would not probably have prevailed so extensively, or have been so fatal, if there had been no famine. No deaths from actual starvation are reported to have occurred, and the above examination of the vital statistics leads us to the general conclusion that the loss of life due to the indirect results of privation was remarkably small.

310. The estimate we form of the measures adopted in Madras for the relief of distress is that for a famine of no long duration and of no exceptional severity, they proved as a whole adequate and successful. The question whether the cost of relief was excessive will be considered separately. We see no reason to dispute the opinion described in the following sentence of the final famine report :—

General conclusion arrived at by the Commission.

"The consensus of opinion among district officers is that the famine will leave few permanent traces behind it."

311. **Bombay.**—The area in the Bombay presidency in which distress necessitating relief measures was occasioned by the failure of the monsoon rains in the early part of September 1896 is returned at 46,004 square miles with a population of 7,544,000, and comprises the whole of five districts* and portions of four others.† The most distressed tract was the Bijapur district, in which virtually no crop whatever was harvested. In Sholapur the crop failure was equally complete on unirrigated lands, and the condition of the district was differentiated from that of Bijapur only by the existence of a fair amount of tank and well irrigation. In Ahmadnagar, Satara and Nasik the destruction of crops was less, and the facilities for irrigation in parts are greater than in Sholapur and Bijapur. In these districts distress was most severe in the hilly country to the west, where the rainfall had never before been known to fail and where the inhabitants are exceptionally poor and agriculture indifferent. In the Poona district severe distress was also chiefly found in the hill taluks in the west. In the remaining three districts distress was of a milder type. The distress was due to failure of crops in 1896 from want of seasonable rain, following upon a series of favourable seasons. For the measures adopted the Government in the final famine report claims success, both as regards their effects in the saving of life and the mitigation of suffering and in the matter of economy. And the principal reason for the success is held to be the formulation of a famine code and the strict adherence to the procedure therein prescribed with only such deviations as experience showed to be absolutely necessary.

Area affected and the cause of the distress.

* Bijapur. Sholapur. Ahmadnagar. Satara. Nasik.

† Poona. Khandesh. Belgaum. Dharwar.

312. As regards the saving of life, it appears that 39 deaths were recorded in the village registers as being due to starvation. The fact that of these cases, 37 occurred in two districts Nasik and Khandesh in which the distress was not very severe, seems to throw doubt on the value of the returns. For it was to be expected that some cases would have been returned, rightly or wrongly, in all the districts where the distress was general and the mortality highest. An inquiry was held in each of the 39 cases, with the result that in eleven cases only were there reasonable grounds for holding that death was due mainly to the want of food. Seven of these were emaciated wanderers from other provinces, the remaining four being wanderers belonging to the Bombay presidency who would not stay on works. Though little confidence can be put on starvation returns it may be said that the measures adopted in Bombay seem to have been sufficient to prevent the occurrence of deaths from actual starvation.

Alleged deaths from starvation.

313. But although the deaths from actual starvation may be safely assumed to have been very few indeed, there nevertheless was some excess mortality during the famine period, part of which at least must be attributed to the effects of privation. The death-rate in the presidency during the period November 1896 to October 1897 was 45 per mille as compared with 35 per mille in the preceding twelve months, and a decennial mean of 29·56 for the calendar years 1887-1896. In the nine affected districts, the excess of deaths over the normal is estimated in paragraph 22 of the final report to be 91,397. In the earlier months of the famine the mortality was generally less than usual, but in March or April a marked rise became apparent in the worst affected districts, and throughout the monsoon months the mortality was in them much above the average. The diseases to which the people chiefly succumbed are shown as cholera, fever, dysentery and diarrhœa. The strain of continued high prices was greatest in June, July and August ; old and partially rotten grain was brought on the markets, a considerable section of the population resorted to inferior and no doubt reduced diet, a deterioration of the public health ensued and the power to withstand disease was weakened. But reasons are given in paragraph 20 of the final report why some of the excess mortality should be attributed to climatic conditions, and such no doubt is the case. The following conclusion at which the Government has arrived seems to be justified by the evidence and to be in accordance with the facts :—"on the whole it would seem clear that the high rate of mortality which prevailed after the commencement of the rains of 1897, just as the low rate of mortality in the previous period, was mainly due to climatic conditions, but in some places the powers of the people to withstand disease had been weakened." In the hill tracts the mortality was exceptionally high as compared with other parts, and there can be but little doubt that in these regions the public health had greatly deteriorated and the power of resisting disease had become much reduced. The plague prevented some of these people from obtaining customary employment in the large towns, and so increased the distress due to the famine. The policy of concentrating labour on large works was not adapted to relieve the people of the hill taluks, who are for various reasons very averse to go to relief works at a distance. Though this was observed it was not found generally practicable to give them relief work in the hills or very near their homes, and when the rains began it was impossible to keep any works open in these tracts. The result was that many fell into a bad physical condition, and had eventually to be relieved gratuitously. For all these reasons there was in the hill taluks a certain insufficiency of relief, which is enough to account for the increased mortality there without searching for further causes.

Examination of mortality statistics.

314. In the conduct of relief works, the distinguishing feature of the Bombay administration was the sustained effort that was made to concentrate the labour so far as possible on large public works, a policy to which we have already alluded in the preceding chapter. With this object the number of road works was largely contracted in April and May and some big irrigation and railway works were started. The result was that the total number employed on public works which was about 290,000 in April, fell to about 258,000 in May, and to 223,000 in June, but in July and August the numbers rose again; and in September they were higher than ever. Though it was found possible in Bombay to carry out this

Examination of the policy of concentrating labour.

concentration of labour to a greater extent than was done in any other province with advantage to economy and without any distinctly bad results, still the system as it was actually worked has its disadvantages. There was reluctance on the part of some to proceed to works at a considerable distance from their homes, and the compulsory residence enforced was also found in some cases to be to a certain extent deterrent. It is admitted that in all parts of the Deccan some of the people have no disinclination to go long distances for employment, while others would undergo much privation rather than do so. Consequently there is reason to believe that some privation and suffering was endured as a result of this policy. In the hill taluks especially this was the case, as has already been remarked in noticing the mortality returns. One circumstance which rendered it impossible for these people to go to works at a distance is the peculiar local system of *rab* cultivation which requires continuous work and the constant presence at his home of the cultivator. And in the plains too, there can be no doubt that a certain amount of suffering attended this policy. The Government is of opinion that those really in want did not scruple to go to distant works, and that very few persisted in their refusal to go to a distance until their health was seriously endangered. But it is admitted that the closure of the smaller works was attended by some suffering, and it is difficult to see how it could have been otherwise. A marked example of this occurred in the Bijapur district where it was found impossible to draft the labourers to a tank work in the adjoining district, and so many of the labourers fell into bad condition that it was found necessary to re-open works for them near Bijapur. For the professional labourer and his family accustomed to take the work as they find it, the conditions of camp life on the works were good enough. But to the small cultivator and the agricultural labourer accustomed only to work at their own homes, they were to a certain extent repugnant and more particularly so during the rains. We are aware that the camps were exceptionally well planned and conducted, that the sanitary and other arrangements for the comfort of the people were complete, and that the health of the workers was good, but nevertheless the general discomforts of camp life, the insufficient protection from the rain and the exposure of the women and children to contact with strangers, are circumstances which probably deterred some from seeking relief who otherwise would have sought it. It is mentioned that in the months of July and August people came to the works in such large numbers that it was impossible at once to provide shelter for all, and many who had avoided seeking relief until their condition had been reduced were unable to withstand the exposure, this being particularly the case with small children. Had the policy of concentration not been carried out to such an extent, and had more works near the homes of the people been left open, it seems probable that there would not have been this rush of people in reduced condition during the earlier part of the rains. Though the concentration of works caused at one time, as has been stated, a large fall in the numbers of relief workers, the fall was never so great as that caused in some other provinces by changes of system of work or wages. The absence of any extensive changes of the latter kind was a feature in the management of public works which tended greatly to ensure their efficiency for relief in Bombay.

We have thus stated in some detail the disadvantages which attended the concentration of labour on large public works, as in practice that policy

was actually introduced in Bombay. But we are distinctly in favour of doing all that can be safely done to enforce such a policy and we regard with approval the efforts made by the Government of Bombay, and in a minor degree by some other local Governments, to carry it into effect. Apart from the inherent objection that such a policy must necessarily fail to attract the jungle and hill tribes for whom it is essential to take special measures, the weak point in the Bombay practice was that the large works were not opened till the end of April, the transfer from small to large works going on in May and June and up to the beginning of the rains. This was due to want of programmes. If the large works had been started at first and the concentration of labour restricted to what the Famine Commission recommended, namely, one large work to each sub-division or taluk, and if subsidiary works nearer the villages had been opened as the heat became excessive and as the rains were approaching, we think the degree of success reached in Bombay would have been more complete. We also think it is unnecessary and inadvisable to insist on residence on the works for those who can return every night to their homes or make other arrangements for the night.

Successful gratuitous relief administration.

315. In the treatment of the children and dependants of relief workers in kitchens at the works, a high degree of success was obtained. And the administration of village gratuitous relief was on the whole carried out with success. The expansion of this form of relief after the commencement of the rains was very proper, and the orders issued to Collectors on the approach of the monsoon to see that the village inspection was carefully carried out and that the dependants of persons who had to resume their agricultural occupation were if necessary to be relieved in the villages, must have had a very marked effect in relieving distress and mitigating suffering.

Hill tribes.

316. As will have been gathered from the preceding paragraphs, the difficulty of affording timely, efficient and economical relief to jungle tribes and the inhabitants of hill regions has no more been solved in Bombay than in other parts of India. It would be too much to say that in Bombay the administration of relief to these people has been accompanied by that degree of success which must be aimed at. A considerable mortality occurred among them, and the evidence goes to show that their sufferings must have been very great. Many of these tracts were supposed from past experience to be not liable to famine, and the Government was at the disadvantage of having had no occasion to devise any scheme of relief for them.

The relief of weavers.

317. In the Bombay presidency as in Madras, there are in certain localities considerable sections of the community belonging to the weaver class who depend for their subsistence on that trade. In Madras, the policy was adopted of providing relief in their own trade for these people where they form numerous communities. But in Bombay a somewhat exaggerated view was held of the difficulty and cost of organising such relief, and it was decided to alter the provisions of the code so as to admit of State relief being given by employment in their own craft only to such weavers as were deemed incapable of earning a livelihood on the ordinary relief works. For this purpose funds were placed at the disposal of Collectors, but the Collector of Sholapur, acting in co-operation with the Municipality of that town, was the only officer who spent time and money on this object. The Government however

resolved to encourage Municipalities to do in respect to weavers in towns what it was not prepared to itself undertake, and with this object an Act was passed to enable local bodies to borrow for the purpose. Only three Municipalities took advantage of this Act and the number of distressed weavers relieved by them was not large. So far as it went, the relief given was cheap and acceptable to the people and it avoided the risk of breaking up their connection with their hereditary trade. With this exception all the weavers in distress were employed on the ordinary relief works. In May as many as 13,324 weavers were employed on relief works, and it is stated that while there their general condition improved. This was perhaps to be expected, as regular weavers were not likely to resort to public works till severely pinched. There is no reason to suppose that the mortality among weavers was increased by the policy adopted by the Bombay Government, but for the more complete alleviation of distress, and for other reasons, it would have been better if relief in their trade had been given generally to the distressed among town weavers.

Loss of cattle.

318. Among cattle there was a deplorable mortality, and the loss incurred by the agricultural community in this respect must have been very great indeed. The State forests were thrown open to free grazing and were in some cases much resorted to, but very few of the cattle seem to have been brought back. Facilities were also offered by Government for the transport of useful agricultural cattle from affected districts to areas where grazing could be found, but advantage was not taken of these to any large extent. The efforts that were made to induce private traders to take part in the importation of fodder were not successful. The Government operations in the matter of cutting, stacking, pressing and importing fodder, unaided as they were for the most part by private enterprise, could not be on a sufficiently large scale to materially contribute to the preservation of cattle throughout the whole of the area in which the fodder supply had failed. But something was done, and the Government considers that the sum of Rs. 72,740 which represents the loss on the operations was well expended. In this opinion we express full concurrence. The State cannot undertake in severe famine to obviate all loss of cattle, but when the matter is of such vital importance to the agricultural community as it is in Bombay, we think that any reasonable expenditure on measures of this kind is much to be commended. With jungle tribes on the one hand starving in the forests for want of suitable employment and cattle on the other hand dying in the districts for want of fodder, there would seem to be room for a development of this policy, and it may be hoped that the experience gained will be of great value when next famine has to be faced.

Loans and advances.

319. Very large advances amounting in all to Rs. 52, 9,638 were made under the Land Improvement Loans Act and the Agriculturists' Loans Act. These advances were classified under the head of wells, other land improvements, seed, plough-cattle, subsistence and other purposes. If in certain cases the advances may have been devoted to purposes for which they were not intended, this we think was the exception and not the rule. The general consensus of opinion is to the effect that the money was used for the purpose for which it was granted. Nearly 22½ lakhs were advanced for wells, some of which succeeded in tapping water while others did not. The Government is of opinion that the value of the crops produced in

the past year by the aid of the wells that were successful was greater than the cost, and that the repair of such as fall into disuse will on a future occasion of drought cost much less than the construction of new wells. It is of course a matter of regret that in certain cases the wells failed to touch water, and that therefore so much money was wasted. But in the circumstances this was probably unavoidable; and for the future, the Government is considering whether it will not be possible to assist the people by preliminary borings for water when wells are constructed through State advances.

Small suspensions and remissions of land revenue.

320. The very small suspensions and remissions of land revenue granted in the distressed districts seem the most questionable feature of the scheme of relief adopted. It would appear that the Bombay Government has given up its old principle of treating all the revenue payers of a village alike in the matter of suspensions and remissions; but owing to the imperfections of the records it is not easy now to say who is the true revenue payer, and who is or is not in a position to pay. It is also evident that the Government felt it necessary to be rather harder in the matter than it would have otherwise been in consequence of an agitation originating in Poona. Though Government gave out in its orders that no one was to be pressed to pay who could not pay without borrowing, it is difficult to believe that the majority of the smaller landholders did not have to borrow to pay the revenue in such a year. But there is nothing in the report or the evidence we have taken to prove that any serious increase of indebtedness or of transfers of land has been a consequence of the policy followed. If the Bombay revenue system does not allow of remissions of revenue even in case of severe failures of crop of a famine producing type, it is probably better for the small landholders that they should pay at once as best they can and not receive suspensions. In most parts of India they, from an instinct which is probably reasonable, dislike suspensions and prefer themselves the other course. The revenue assessment is now believed to be light in the Bombay Deccan districts, and the sums which the smaller landholders have to raise on that account in a year of drought are probably insignificant compared to the cost of replacing plough-cattle.

General conclusions arrived at by the Commission.

321. Viewed as a whole, the administration of famine relief in the Bombay presidency was distinctly successful both as regards the saving of human life and the mitigation of distress. In some respects it may have fallen short of the ideal standard to be aimed at; but as a whole the measure of success attained was very great.

The area affected.

322. **Punjab.**—The area affected in the Punjab by the failure of the monsoon rains of 1896 was very extensive, but the situation was greatly improved by opportune rain in December which permitted cold weather sowings to be extensively made, and anxiety was subsequently confined to a tract of country in the south-east of the province comprising the greater part of the Hissar district and such portions of the Gurgaon, Delhi, Rohtak, Karnal and Umballa districts as are not protected by the irrigation system of the Western Jumna Canal. In this tract of 10,000 square miles with a population of $2\frac{3}{4}$ millions measures of relief on an extensive scale were undertaken, and outside it relief was also required in small portions of the Ferozepore, Lahore and Gujrat districts. The total area in which relief operations were undertaken was 12,000 square miles with a population of

$3\frac{1}{4}$ millions. In Hissar only, where the yield of four successive harvests had not exceeded 25 per cent. of an average crop, was the stage of acute famine reached. The famine cannot be said to have been entirely due to the failure of the monsoon of 1896, because relief operations had been found necessary in the preceding spring in the Sharakpur tahsil of the Lahore district, and also in the Phalia tahsil of the Gujrat district in August before it was known that the rains would abruptly cease. But it is probable that had the monsoon not failed it would have been unnecessary to undertake any relief measures in the cold weather, and the Phalia relief works would have been closed with the ripening of the autumn crops. The failure or premature cessation of the monsoon of 1896 was however the main cause which brought about the famine conditions which prevailed in the affected areas. That these conditions were less serious in the Punjab than elsewhere, was partly due to the fact that the Punjab had enjoyed a series of excellent harvests from 1892 to 1895, and despite the indifferent *kharif* of 1895 and *rabi* of 1896 the people were in a more favourable position than those of some other provinces to meet the strain in 1896-97.

Commencement of operations.

323. The period during which famine relief operations were carried on in the Punjab began with the local operations necessitated in the Sharakpur tahsil of the Lahore district in the spring of 1896, and practically ceased at the end of September 1897. The distress in the Sharakpur tahsil was very modified in degree, and was due chiefly to failure of the fodder supplies and the consequent mortality among cattle on which the people largely depend. The measures taken to meet this distress were fully sufficient. The early commencement of operations in Gujrat was occasioned by a fodder famine dating from September 1895 followed by a failure of the *rabi* harvest of 1896. We have already shown that the relief given in this district was probably excessive at first; as to the sufficiency of the measures there adopted to relieve distress and to save life there can be no doubt. In the districts south of the Sutlej, the main scene of the Punjab famine, regular relief works were first started in November 1896, although these had been preceded two or three weeks by the opening of test works. The preceding chapter contains a brief account of the nature of these relief works and of the measures adopted for the relief of the non-working children and infirm dependants of the workers. The policy adopted in Hissar of resorting to village tanks in the hot weather and so providing employment nearer the homes of the people at a time when hot weather conditions were most severe and when the approach of the rains made it desirable to keep the workers within immediate reach of their fields was in every respect most successful. When the monsoon broke in July the workers voluntarily left the works to resume their usual occupations. During the last week of July the daily attendance on the relief works in Hissar was only 22,000. Up to this time no pressure appears to have been used, or required, to induce the people to leave the works and return to their homes and the cultivation of their fields. By the end of August there were less than 10,000 people on the works; but late in this month their wages were reduced by one pice for every class below the rate prescribed by the code, and this doubtless contributed to their final dispersion. This reduction of the wage was not made, as in some provinces, at the time when the numbers on relief works were at their maximum and consequently when the distress may be concluded to have been most severe, but when the famine was practically over and the great majority

of the workers had voluntarily returned to their homes. In no other district were special steps taken to hasten the close of relief operations. As observed by the local Government, the famine was allowed to die a natural death.

Gratuitous relief.

324. The gratuitously relieved in villages constituted 10 per cent. of the total relief units relieved in the province. In only five of the nine affected districts was relief in this form granted at the cost of the public funds. The enquiries preliminary to the drawing up of lists of persons considered to be deserving of village relief took much time. "As soon as the registers of any one tahsil were passed by the Deputy Commissioner," it is stated in the Hissar report, "distribution began, but the delay gave no small ground for anxiety. Nothing serious, however, happened, and the elaborate caution which characterized the preliminary inquiries was fully justified by the subsequent smooth and impartial working of the scheme." This delay led to the postponement of the issue of gratuitous relief in the large towns and villages until long after the opening of relief works. On the 9th of November 1896 relief works were opened in the Hissar district, and "orders were given to start the distribution of gratuitous relief in the Sirsa tahsil in the last week of January 1897." On general principles we are disposed to think that as a rule gratuitous relief should commence simultaneously with relief works, and it may be conjectured that the delay in the Hissar district due to the elaborate arrangements adopted for drawing up and checking the village relief lists must have resulted in some distress and suffering which might have been averted had gratuitous relief been begun at the same time that relief works were opened. But on the whole when we consider the circumstances of the province and the degree of distress that existed, we think that relief in this form was given on a sufficiently extensive scale.

Measures of indirect relief.

325. The amount of indirect relief afforded in the shape of remissions and suspensions of land revenue and by advances under the Land Improvement Loans Act and the Agriculturists' Loans Act was large, and must have contributed very materially to the relief of distress.

Loss of cattle.

326. A noticeable feature of this, as of former famines in the Punjab, has been the great mortality that occurred among cattle caused by the drying up of fodder supplies. As stated in the report, "it will probably never be known to what extent agricultural stock has been depleted during the past two years"; but in the single district of Hissar no less than 77,134 or 54 per cent. of the plough cattle are estimated to have disappeared between the 1st May 1896 and the 31st March 1897, a period of eleven months. According to another estimate for the same district "132,325 animals, or 92 per cent. of the plough and well cattle of those found to exist in April 1895, disappeared in the two-and-a-half years following." From these figures may be formed some idea of the distress and suffering to cattle and the resulting loss to cultivators. The measures adopted by the local Government to mitigate this loss by the opening to grazing of Government forests seem to have been as full as circumstances permitted.

Success of the measures adopted.

327. Our conclusion is that the measures adopted by the State with the object of relieving distress and saving life were eminently successful. Of actual loss of life from starvation there was extremely little. From the very commencement of the

famine, officers were enjoined to be most careful to inquire into all cases in which deaths were reported as caused by starvation, yet, as a result of their inquiries, only four deaths (three of them in the Hissar district) could be shown to be directly due to starvation. "But it would be incorrect and misleading", the the local Government observes, "to conclude that this insignificant figure represents the total effects of the famine on the mortality statistics. There can be no doubt that deaths have occurred as the indirect consequence of insufficient nutriment, which renders the constitution an easy prey to any disease which may subsequently be contracted." As in other provinces, this condition of weakness often occurs among people of small but insufficient means who prefer to stint themselves at home rather than submit themselves to the conditions of famine relief.

Examination of vital statistics.

328. The influence which the famine of 1896-97 exercised on the health of the people may best be shown from the vital statistics of the two years. Dealing first with the year 1896, we find that the birth-rate of the Punjab in 1896 was higher than in any other province in India. The death-rate of 1896 was less than the birth-rate by 11·5 per mille, and amounted to 31·5 compared with a mean death-rate of 35 per mille. For the nine districts in which distress prevailed in 1897 the birth and death-rates in 1896 were as follow:—

DISTRICT.	Mean birth-rate during previous five years.	Birth-rate, 1896.	Mean death-rate during previous five years.	Death-rate 1896.
Hissar	40·2	45·4	30·3	32·9
Rohtak	42·6	47·8	29·3	35·2
Gurgaon	45·8	49·0	32·0	35·0
Delhi	42.1	47·2	40·1	36·3
Karnal	43·8	47·9	38·8	40·4
Umballa	37·0	36·6	40·6	40·9
Ferozepore	41·6	50·8	30·8	31·8
Lahore	41·7	47·0	36·2	31·0
Gujrat	37·7	40·3	29·0	22·9

The detailed monthly returns of births and deaths in these districts show that in 1896 the death-rate was highest in January and February. In November and December, when distress had appeared and regular relief works had been opened in some of the nine districts declared to be famine stricken, the death-rate was abnormally low. The explanation of the low rates of mortality in the last months of the year is to be found in the failure of the usual rains and the consequent dryness which succeeded their failure. The malarial diseases which ordinarily raise the death-rate in the months following the rains were, in consequence of the failure of these rains, less fatal than usual.

Examination of vital statistics—continued.

329. Turning now to the vital statistics of 1897, we show below the birth and death-rates for that year for the nine districts as compared with the mean rates for the five years preceding 1896:—

District.	Mean birth-rate for 5 years, 1891-1895.	Birth-rate for 1897.	Mean death-rate for 5 years, 1891-1895.	Death-rate for 1897 per mille of population.
Hissar	40·2	34·0	30·3	45·0
Rohtak	42·6	45·7	29·3	32·7
Gurgaon	45·8	46·9	32·0	37·4
Delhi	42·1	46·0	40·1	33·3
Karnal	43·8	49·4	38·8	40·5
Umballa	37·0	37·2	40·6	30·3
Ferozepore	41·6	48·0	30·8	31·7
Lahore	41·7	45·0	36·2	26·8
Gujrat	37·7	36·0	29·0	21·9

As regards births, there was no marked decrease below the mean of the five-year period 1891-95 in any of the nine districts except Hissar. In all of the others, except Gujrat, there was an increase. This was what might have been expected when the favourable health conditions of 1896 are taken into consideration. As previously stated, severe famine conditions were practically confined to the Hissar district; and the truth of this is fully confirmed by an examination of the vital statistics. Whilst Hissar was the only district in which there was a marked falling off in the birth-rate, so it was the district in which the death-rate in 1897 was most in excess of the normal rate. In Hissar the death-rate rose from 30·3, the mean of the five-year period 1891-95, to 45·0 in 1897—an increase of 14·7 per mille. The only other districts in which there was a marked increase were Rohtak and Gurgaon: in the former the death-rate increased by 3·4, and in the latter by 5·4 per thousand of population. The following table shows that the excess mortality was confined to the autumnal months:—

Monthly return of mortality for 1897 and January 1898. Per mille per annum.

District.	January 1897.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January 1898.
Hissar ...	25	21	23	29	36	41	40	46	69	92	75	44	*28*
Rohtak ...	29	20	21	20	23	34	25	26	47	53	60	35	*24*
Gurgaon ...	21	19	19	22	26	27	24	30	64	87	67	43	*30*
Delhi ...	25	20	22	25	28	30	25	27	41	61	55	41	*30*
Karnal ...	27	22	20	24	32	32	27	37	44	87	79	56	*37*
Umballa ...	29	27	23	22	23	24	22	26	44	46	44	34	*31*
Ferozepore ...	20	22	26	24	28	27	25	27	32	50	57	43	*34*
Lahore ...	26	21	20	19	22	23	20	22	26	38	46	38	*29*
Gujrat ...	18	18	16	19	20	17	17	18	22	27	35	36	*25*

A reference to the detailed returns shows that the remarkably sudden increase of mortality in the three districts of Hissar, Gurgaon and Karnal was due to fever. In Hissar the deaths from fever numbered only 1,678 in July; in August 2,013; in September 3,308; and in October no fewer than 5,175. In November the number had decreased to 4,091; in December to 2,388; and in January 1898 to only 1,472. In the other two districts, Gurgaon and Karnal, in which the death-rate was highest and attained a maximum of 87 in October, the cause of high mortality was likewise fever. There was also some cholera in the months of June, July, August, September and October; but this disease never was severely epidemic and was limited almost entirely to the Hissar district. It was credited with 160 deaths in July; 147 in August; 154 in September; and 66 in October, after which it disappeared. Its period of greatest intensity did not, therefore, coincide with the period of highest mortality nor did the number of deaths due to it ever very sensibly affect the death-rate. As might have been expected, the mortality from bowel complaints increased along with that from fever but not to a noticeable extent. In July, only 116 deaths were attributed to these diseases; in August they had increased to 236; and in September to 271. They fell to 235 in October, and after this continued to decrease until in January 1898 they numbered only 52. From the inquiries made, there seems to be no doubt that the fever, which was the main cause of the sudden increase of mortality during the months following the setting-in of the rains, was of the ordinary malarial type which annually prevails with greater or less intensity at this season and which always occurs when a year of heavy monsoon rainfall succeeds a year of drought. All observers are agreed that it was neither infectious nor contagious. They agree also that the mortality which was caused by it was increased by the enfeeblement of health which a prolonged period of privation had produced. The increase due to this cause was probably small, for the evidence shows that the state of enfeeblement from privation, which prevailed in certain parts of some provinces at the end of the famine, was very exceptional in the Punjab.

330. **Berar.**—During the period of nearly half a century that the Hyderabad Assigned Districts have been under British rule the province has never suffered to any appreciable extent from agricultural depression, and until 1896-97 it was considered by the local officers to be practically safe from famine. In 1897, if the hilly tract in the Satpura range known as the Melghat be excepted, the famine in the Berars was never very acute. Throughout the province prices no doubt ruled very high, and there was a good deal of distress of a scattered nature, greatly aggravated in parts by the influx of famished wanderers from other territories, in particular from the Central Provinces. But with the exception of the tract already referred to, there was probably no part of the province that suffered from actual famine. As the Commissioner observes in his report, the famine of 1896-97 in Berar was not so much a period of actual scarcity of food as a famine caused by high prices, and he is probably right in making the conjecture that had Berar been an isolated tract dependent on its own resources to provide for its own population, there would have been no famine and little necessity for relief. There would however in any case have been some distress among the field labourers who make up 30 per cent. of the population. These people in the greater part of the province lost almost all their usual harvest earnings

Cause of the distress.

for the *kharif* and *rabi* harvests of 1896-97, and also most of their usual agricultural employment. It was these people who supplied almost all the local applicants for famine relief. They were driven to seek relief by the loss of their earnings and by the immense rise of prices.

The measures adopted.

331. Leaving out of consideration for the present the Melghat taluk of the Ellichpur district, it may be said that the approach of distress was promptly recognised by the local officers and timely preparations were made to cope with it when it became severe. As early as October 1896 it was recognised that relief measures would be required, and from then till the end of February 1897, when the first works in the plains taluks were started, preparations for the introduction of measures of relief in the shape of works, poor-houses, and gratuitous relief were made. Village gratuitous relief does not however seem to have been started "till a late stage of the period of distress, when works were difficult to execute owing to the rains, and the people had become exhausted and unable to work." Till then great reliance seems to have been placed on private charity. Though private charity was exceedingly active and liberal, it may be doubted whether village relief ought not to have been given earlier. The measures initiated in these circumstances seem on the whole to have been sufficient and to have fulfilled their object, at least so far as the people of the province are concerned. The management of the relief works however does not seem from the evidence we have taken to have been sufficiently uniform. The system and wage-rates of the Bombay code and the system and wage-rates in force in the North-Western Provinces were intermixed, and trials of new systems were made at times which do not seem to have been opportune. The numbers on the works were never so large as might have been expected, and it seems probable that this may have been to some extent due to faults of management as well as to the strong dislike of the people to leaving their homes. There seems also reason to doubt whether the wages on the relief works were always sufficient. According to the Sanitary Commissioner's report the women and children on the works were often in bad condition, and the minimum wage was condemned by many of the medical officers as inadequate. That a certain number of deaths from starvation did occur cannot be denied, and it is also apparent that after April 1897, and particularly in the rains, a large rise in the mortality due to some extent to dysentery and diarrhœa took place. But it is a matter of extreme difficulty to judge how far this mortality is directly connected with the distress existing within the province, and how far it was influenced by other causes. Some part of it may be due to the fact noticed by the Commissioner that the people left the works in August and September, when prices were highest, of their own accord. They went to get agricultural work, but if they got it, they often found the wages too low to provide them with sufficient food. As regards the deaths from actual starvation, there is probably no doubt that by far the most of these occurred among famished wanderers who came in from other territories. The treatment of these wanderers was throughout a source of anxiety and difficulty to the local authorities. In particular the sudden inrush from the Central Provinces in July and August was unexpected, and as many arrived in an almost moribund condition, but little could be done for them. Poor-houses for their reception were established, but whether or not in sufficient numbers and in suitable localities the evidence is scarcely sufficient to justify the formation of an opinion. In any case the difficulties occasioned by their

arrival were great, a considerable mortality from actual starvation and from privation occurred among them, and the eventual responsibility in their case would appear to rest more properly with the authorities of the province from which they came rather than with the authorities in Berar. The starvation deaths among the people of Berar seem to have been very few indeed, and to have been due not so much to the absence of proper measures of relief as to failure on the part of individuals to accept relief.

Mortality statistics.

332. As regards the heavy mortality in the rains, a part no doubt is due to the sudden and serious increase of paupers from the Central Provinces already referred to. But another part, particularly in the Akola district, would seem to be due to the effects of privation felt within the province. The table below exhibits the mortality statistics of each district from January to December 1897 :—

Districts.	Population.	Ratio of deaths per 1,000 of population. 1897.											
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Amraoti	655,645	2·4	2·0	2·5	·5	5·5	3·9	4·4	8·8	9·5	8·7	5·7	3·8
Ellichpur	259,164	2·1	1·6	2·1	4·6	5·8	3·5	4·2	8·3	8·2	6·8	4·6	2·8
Wun	471,613	1·7	1·7	1·9	2·4	3·2	3·0	3·5	5·6	6·8	5·8	3·4	2·8
Basim	398,181	1·7	1·5	1·8	1·9	2·3	2·8	5·5	7·8	6·7	5·7	3·0	2·5
Akola	580,590	2·0	1·7	1·7	2·4	4·0	4·8	4·6	11·2	9·9	6·2	3·6	2·9
Buldana	478,029	2·0	1·6	1·7	2·0	2·4	3·1	5·3	11·6	11·5	6·6	3·1	2·9
Total for Berar ...	2,843,222	2·0	1·7	2·0	2·7	3·9	3·7	4·6	9·0	9·0	6·8	4·0	3·0

There is evidence, as might have been expected when the character of the people is considered, that many endeavoured to eke out a subsistence on jungle produce and submitted to continual privation before they consented to accept relief, with the result that when the rains set in they were physically much reduced and unable to withstand the hardships of that unhealthy season. But cholera also appeared, and all circumstances considered it would be unsafe to estimate how much of the excess mortality was due to privation. The evidence as a whole would seem to point to the conclusion that the measure of relief afforded was fairly sufficient, that the mortality due to privation and the suffering that might have been averted was not large and must be attributed chiefly to the peculiar habits and customs of the people.

The Melghat taluk.

333. In the Melghat taluk of the Ellichpur district, distress of a very severe type existed. This region is a hilly tract of the Satpura range, inhabited almost entirely by indigenous tribes such as Korkus and Gonds—a people of the poorest description, shy and diffident, living from hand to mouth, with no resources and extremely averse to any work except fitful labour in the forests. In this taluk there were no stores of grain, the crops failed completely and the people

had no money or resources of any kind except the natural products of the jungles. Distress quickly developed and relief was commenced in December 1896. Everything in the way of offering work that it seemed possible to do for people of such habits appears to have been done. Forest officers familiar with the ways of the people were placed in charge of the operations, the ordinary code tests were abandoned, liberal rates were offered, gratuitous relief was given, cheap grain shops and poor-houses were opened, and one way or another, the Commissioner estimates, 25 per cent. of the population received relief of some sort. But even so, it seems to be admitted on all sides that the relief afforded was not sufficient either to save life or to relieve distress. Reliable vital statistics are not available, but it is admitted by all concerned that a considerable mortality directly due to privation did occur. The Commissioner refers to this mortality in his report, the Deputy Conservator of Forests (Mr. Williamson) alludes to it in his written evidence, and the Conservator of Forests (Mr. Bagshawe) mentioned it in his oral evidence. The mortality was probably unavoidable: so far as our experience goes such mortality is inseparable from famine conditions when they occur among people similar in habits to the tribes inhabiting the Melghat. The chief direction in which it appears possible to bring relief more home to these people is by strengthening the village inspection organization and by extending the system of gratuitous home relief. But how far success in this direction can be achieved it is difficult to say.

334. **Burma.**—The area affected was a portion of the tract of country commonly alluded to as the dry zone of Upper Burma. This region is about 100 miles in length and 80 miles in breadth, and there is reason to believe that for some centuries past the rainfall has been steadily diminishing and the country as a consequence gradually deteriorating. In 1856-57 it is known that the deterioration hardened into famine of a severe type, and since that time the method of cultivation has greatly changed and a regular system of temporary emigration for employment to more favoured regions has become established. The distressed area at the period of maximum pressure covered 5,331 square miles with a population of only 528,175 souls, and comprised the whole of the Meiktila district, the greater part of the Myingyan district and the Yamèthin sub-division of the Yamèthin district. The distress, which was the result of the failure of the rains of 1896 following upon unfavourable seasons, was promptly recognised by the local officers of Government, and early measures were taken to meet it. That the measures adopted were commensurate with the requirements there seems to be no doubt, but the conditions existing in this part of Burma are so peculiar, and so different from anything with which we are familiar in India proper, that it is difficult to make a comparative examination of the degree of success that has attended them.

Commencement of the distress.

335. The first noticeable effect of the crop failure was the very extensive emigration of the population that took place. Over 200,000 people, or more than one-third of the whole population of the distressed area, moved to Lower Burma for work. And this movement of the people, which in many parts of India would have been regarded as a calamity, was the most effective measure of relief that could be afforded. There was no reason why the people should be tied down to their dry zone, while other parts of Burma were in urgent need of their services. The local Government

Migration of the people.

accordingly did everything that lay in its power to assist and encourage the emigration, and so far as can be gathered from the evidence the movement was effected with complete success. The average number on relief was 20,000, while 200,000 supported themselves by emigration, and also sent or brought back money which kept many of their dependants, who stayed at home, off relief.

The measures adopted.

336. For those who remained behind, remedial measures were promptly introduced. Large remissions of the *thathameda* or house-tax were made, test works and then small relief works in each affected district were opened, and subsequently a large railway work with several camps took the place of the small works. The code task-work system was in force on the works, and gave good and sufficiently economical results. As a rule, only the poorest and weakest classes were on the relief works. The piece-work system so far as it was tried was not a success from a famine relief point of view, for the reasons we have already given. After the preliminary stage the railway seems to have furnished all the employment that was required until very nearly the close of the operations when some supplementary works were opened. For those unable to work gratuitous relief was given, while agricultural loans on a liberal scale were granted for both the early and the late crops. The local Government appears throughout to have exercised a close control over the operations, and to have ensured that the measure of relief afforded was adequate. Some amendments made in the local famine code were with this object, the most noticeable of these being a provision increasing the allowances to dependent children, who at one time, it was thought, were not receiving enough under the scale then in force. The reduction of wage from the B to the C class made on the railway works in August, in order to induce the people to move to other works further north, did not have the desired effect, though it was one of the reasons which led to a large reduction in numbers on the works and to some increase of crime. The women and girls on the relief works were often greatly in want of clothes, and the gifts under this head from the charitable relief fund supplied a real want, and were greatly appreciated.

Successful result of the operations.

337. In the absence of reliable statistics, it is impossible to arrive at a definite conclusion as to whether or not any excess mortality occurred which can be attributed to the famine. Prior to February 1897 there are no statistics, and those compiled after that date are probably not very reliable. One factor alone, namely the great movement of the people, must render them unreliable. All that can be said is that there was no ascertained mortality directly due to starvation, that there was a heavy death-rate in some months due to cholera which cannot be ascribed to famine, and that the measures adopted by Government were as a whole so extensive as to render it improbable that much mortality was indirectly due to the effects of privation. On the relief works the general rate of mortality seems to have been very low, though at one time the condition of the children was thought to be unsatisfactory, and measures were taken in their behalf as has been noted above.

Indebtedness of village headmen and loss of cattle.

338. In two respects only does it seem possible that something more might have been done to alleviate distress than was actually done. In paragraph 33 of the official report of the Upper Burma famine it is stated that as a result of the famine a great many

of a class of Government servants called village headmen have fallen hopelessly into debt; while from part VI of the same report it would appear that in certain localities some loss of cattle occurred. The information before us is not sufficient to enable us to correctly estimate the gravity of these misfortunes, or to express any opinion as to whether further steps could, or should, have been taken to avert them. In his concluding paragraph the author of the report remarks that the two most affected districts, Meiktila and Myingyan, are left deeply impoverished and with less resisting power than they had before the late famine. This is greatly to be regretted, but it seems due to the circumstances of the dry zone country which has been gradually deteriorating from natural causes, and not to any fault in the relief operations or in the previous administration of the local Government.

PART II.

DEGREE OF SUCCESS WITH REGARD TO ECONOMY.

The magnitude and cost of the relief operations of 1896-97.

339. The famine of 1896-97 affected an area of about 225,000 square miles in British India and a population of 62 millions. The area which was severely affected, and to which relief operations were chiefly confined, may be put roughly at 125,000 square miles with a population of 34 millions. In the direct relief of distress, apart from loans and advances to landholders and cultivators and remissions of land revenue, 727 lakhs of rupees (Rx. 7,270,000) were expended by the State. Relief was thus given to 821 millions of persons at an average cost of 1·42 annas a day for each person relieved. This is equivalent to an average of 2,220,000 persons relieved day by day for the space of one year, at the rate of Rs. 32·7 per head per annum. It was the opinion of the Famine Commission, judging by the experience of the past, that the largest population likely to be severely affected by any future famine in British India might be put at about 30 millions, that the average number of persons in such a famine likely to require relief continuously for one year might be put at from two to two and-a-half millions, and that the average cost of such relief would be about Rs. 50 a head a year. The recent famine has proved the general accuracy of this forecast as regards the population likely to be affected and the numbers likely to require relief. But the cost of relief per head has been materially below the amount named by the Famine Commission, so that only 727 lakhs of rupees (Rx. 7,270,000) were actually spent, whereas on the Famine Commission's estimates, which were based on the experience of former famines, an expenditure of 1,145 lakhs of rupees (Rx. 11,450,000) might have been anticipated. Many causes have contributed to this reduction of the cost of relief. Elsewhere in our report we have expressed the opinion that in the effort to safeguard the public funds and to prevent relief works from attracting persons not actually in want, the wage rate has at times and places in the recent famine been allowed to drop below the point at which the worker's subsistence is assured. But this in itself would not account for the great economy in the cost of relief per unit relieved that distinguishes the late famine. Something is probably due to the increased percentage of young children and infants relieved under the prescriptions of the code, which provide for the separate relief of the

non-working children of the relief labourers. These provisions have been applied more fully in the late than in any former famine, and as young children cost much less to relieve than adults, the result has been to bring down the average expenditure per unit relieved. Much is undoubtedly due to the careful organization prescribed by the famine codes, to economies in establishments and miscellaneous charges, and to the minute supervision exercised over famine relief expenditure in all branches. In respect of the price of food-grains, which, as the basis of the wage and gratuitous dole, must materially affect the cost of relief, the late famine had little or no advantage over its predecessors, for the general level of prices in 1896-97 was as high as in the Southern Indian famine of 1876-78, and higher than the prices current in the Behar famine of 1873-74. But as the grain-trade was left by the State to private enterprise, there was at all events no expenditure in importing or distributing food such as that which so greatly augmented the cost of the Behar famine of 1873-74.

General conclusion as to the economy of the measures.

340. Our general conclusion then is that, as compared with the past, a considerable degree of success as regards economy has been attained in the relief measures of the late famine. When, however, we proceed to examine the matter more minutely with reference to the famine administration of each province, and to estimate the relative degree of success attained in each, we meet with difficulties. Definite conclusions on questions of economy should rest ultimately on statistical data. In the case of famine relief and expenditure of the several provinces, exact statistical data on many points essential for determining whether the relief given has been given with full regard to economy, are unattainable. The sum actually expended is a known figure, and the details of the expenditure under various heads of relief are also known. The number of persons relieved under each head of relief, stated in terms of units of one day's relief, is also known. The period of time during which relief was given is also known. But this completes the enumeration of the accurately known quantities in the problem. The area and the population affected in each province and in each district might be supposed to be known quantities. But this is only true in a general way. Sometimes the whole district is so affected that relief operations are required and undertaken throughout it from the first, and in this case there is no doubt as to the population requiring relief, and in relieving which expenditure is incurred. But quite as often relief on an extensive scale is confined to a portion only of a district, or is so confined for the first months of the scarcity and extends in the later months beyond its first limits. In such case the population unit, for the purpose of comparing the population requiring relief with the expenditure actually incurred, cannot be exactly stated. Two instances will illustrate this difficulty. Up to June 1897 the affected area and affected population of the Kurnool district in Madras were returned at 2,700 square miles and 340,000 persons respectively. After June the area was returned at 4,019 square miles and the population at 512,000. In the Bombay presidency the whole of the Poona district, with an area of 5,349 square miles and a population of 1,067,000, is returned as more or less affected, but a portion consisting of 2,987 square miles with a population of 488,000 is returned as specially affected. By far the greater part of the relief given in the Poona district was given in the specially affected area; and it is a doubtful question whether in comparing the population requiring relief in this district with the numbers actually relieved and the expenditure in it, the specially affected area

only should not be considered. If the whole area of the district is taken into consideration, the average number of persons on relief during the 14 months of the famine operations represents 2·2 per cent. of the population. But, if the specially affected area alone be considered, the ratio of persons relieved to the population of that area is 4·6 per cent. Thus there are elements of uncertainty in the factors of area and population which enter into the problem of the comparative economy of the relief measures in each province. But there are much greater elements of uncertainty in the all important factor of the relative intensity of the distress which had to be relieved. The extent of crop failure, and the degree to which prices rise above the normal rate, are, as indicated by the Famine Commission in paragraphs 77 and 78 of their report, the two determining considerations. As regards the first consideration, the opinion expressed by the Famine Commission is that pressure, sufficient to require special measures of relief, may occur in a locality if the crop outturn of the year falls below 50 per cent. of a full crop, and that intense famine is likely to prevail if the crop outturn of the year is diminished to 25 per cent. of a full crop. As regards the second consideration, the Commission stated approximately and generally that in times of very great scarcity prices of food-grain may rise to three times the ordinary amount. If these two criteria be applied to the different tracts in which relief operations were carried on in 1896-97, scarcity conditions are found to have existed in all tracts, and conditions of intense famine over extensive tracts. The extreme rise of prices predicted as possible by the Famine Commission did not occur, except in exceptional and limited areas and for short periods; but a rise of 150 per cent. was experienced in many places, and a rise of at least 100 per cent. was almost universal throughout India. The reported failure of crops in all the affected tracts indicates outturns at least 50 per cent. below the full yield of a whole year, and in some tracts 75 per cent. below that standard. But the uncertainty arises when we begin to differentiate more closely. In the first place the areas in which the crop failure amounted to 75 per cent. of the full outturn of a year, are not exhaustively specified in the reports. The districts mentioned in the margin may be placed with little hesitation in this class, and, on the test indicated by the Famine Commission, intense famine may be presumed to have existed in them. The criterion is so far correct that they are all districts in which severe distress existed and large relief measures were undertaken. But there are other districts in which the crop failure did not apparently reach the extreme deficiency of 75 per cent., which in all other ways displayed marks of equal, or nearly equal, or even greater distress. No Bengal district is included in the list, because even in the most affected district in Behar the crop outturn was well over 30 per cent. of the average outturn of the year. But in the exclusively rice-growing parts of the north Behar districts, to which relief operations in Bengal were chiefly confined, the crop failure was very great.

Province.	*District.*
Punjab ...	Hissar.
North-Western Provinces and Oudh.	Hardoi.
	Allahabad.
	Banda.
	Jalaun.
Central Provinces.	Damoh.
	Mandla.
	Balaghat.
	Bilaspur.
Bombay ...	Sholapur.
	Bijapur.
Madras ...	Bellary.
	Kurnool.
	Anantapur.

Difficulty of gauging degree of distress.

341. There is thus a great element of uncertainty in gauging the degree of the distress which had to be relieved by the returns of the harvests of 1896-97. But this uncertainty is increased by many other considerations incapable of quantitative determination. There is first the previous history of each tract, the character of the preceding

seasons, and the resources and capacity for self-help of the inhabitants. It is known that about half the districts of the Central Provinces in which relief operations were undertaken had experienced one or more very bad years before 1895-96, that their resources had thereby been exhausted, and that even under ordinary conditions their populations are not distinguished for energy and self-reliance. The case of the Bundelkhand districts in the North-Western Provinces was much the same. The cumulative effect of these circumstances in aggravating the distress occasioned by the failure of the rains of 1896 is obvious, but there is no method of valuing it with precision. The Hissar district had suffered a similar series of bad years, but there is evidence that the people had larger resources and were more prepared to endure agricultural disaster. Hence the relief required in this district was on a smaller scale than that demanded in the worst districts of the Central Provinces or the North-Western Provinces. In other provinces the effect of previous bad seasons was less marked. In Bengal the year immediately preceding the rains of 1896 had been one of indifferent harvests, but the two years preceding it had been good, and there were no symptoms of distress before the failure of the rains of 1896. In Madras the affected districts up to June 1896 had enjoyed three prosperous years, and the people were generally in good condition. This also was the case in Bombay. But considerations of another order come into play in the case of Madras, Bombay and Bengal, which are equally difficult to quantitatively determine. The Madras and Bombay Deccan is admittedly poor and unproductive compared with richer parts of India, and very liable to drought. In the case of the Madras Deccan it is urged that this circumstance must tend to place the bulk of the population at all times on the verge of distress. In the case of the Bombay Deccan, however, it is stated that the resources and prosperity of the population have of recent years much increased. It is difficult to account for the differences thus said to exist between two adjoining and geographically similar tracts. In the case of the Behar districts of Bengal the great density of the population and the poverty of the lowest classes are factors which make any pronounced failure of the rains a matter of serious moment, and which assume a still greater importance when to deficient local harvests are added extremely high prices of food-grains.

Difficulty of gauging degree of distress—continued.

342. Another element of uncertainty in determining the severity and duration of distress in each affected tract, is found in the varying fortunes of the several provinces after the critical point of the year had been reached. The Famine Commission, after summarising the climatic conditions and the agricultural seasons of each Indian region, remarked that the pressure caused by drought in a single year will generally last for about 8 or 9 months, and that if it is prolonged beyond that period by a second failure of the rains, the suffering is greatly aggravated. In the late famine, pressure everywhere set in from October or November 1896, and from that date till June 1897 was characterised by several well marked common features. These were the abrupt termination of the south-west monsoon in September, the failure of the north-east monsoon in November and December in the Bombay and Madras Deccan, and the lateness and unequal distribution of the cold weather rainfall in Central and Upper India. The result of these circumstances was the extensive failure of both the early and late sown crops in the Madras and Bombay Deccan, and of the rain crop and the cold weather crop in Central and

Upper India (including the Behar districts of Bengal). Thus from November 1896 until June 1897, in which latter month the south-west monsoon ordinarily makes its appearance and a new agricultural year begins, the conditions of the relief problem in each province were, broadly speaking, uniform. But from June onwards these conditions began to differentiate according as the monsoon rains were favourable or the reverse, and this greatly influenced the future course of relief measures and their expansion or contraction in each province. In this respect Bengal and Central and Upper India were more fortunate than Madras and Bombay. Madras again, though the position hung in the balance till August, was more fortunate than Bombay, in parts of which the monsoon rains were defective from first to last. The rapid contraction of relief operations in Bengal, the North-Western Provinces and the Punjab from July onwards, and their prolongation on a large scale till a later date in Madras, and to a still later date in Bombay, are thus naturally connected with the different character in each region of the monsoon rains of 1897. But this natural connection between the course of relief measures and the season is liable to be affected by other circumstances, of which the most potent is the extent to which the resources of the people have been impaired or exhausted by distress. In the Central Provinces, for instance, the expansion of relief measures after July, and their continuance until the close of the year, were mainly due to the after effects of very great distress, as the season was as favourable as in Upper India. It is evident from these considerations that no definite formula can be laid down for determining the amount of relief required after the critical period of the famine has been passed, or the period for which it will be required. But as the total expenditure on relief, and the aggregate number of persons relieved from first to last in a locality largely depend on the course of relief during the closing months of a famine, any comparison between province and province is liable to be disturbed by this uncertain factor as well as by the others which have been previously enumerated.

Comparisons with former famines difficult.

343. It is equally difficult to draw any exact conclusions as to the economy exercised by the several provincial Governments in the famine relief operations of 1896-97, from comparisons with the amounts expended and the numbers relieved in former famines in those provinces. The comparisons which obviously suggest themselves are in respect of the Behar famine of 1873-74, and the great Southern Indian famine of 1876-78. The Bengal famine of 1873-74 cost 662 lakhs of rupees as against a total expenditure of 108 lakhs on this occasion in Behar and Bengal. The Bombay famine of 1876-78 cost 114 lakhs to the end of December 1877 as against 126 lakhs spent in Bombay in 1896-97 up to December 1897. The Madras famine of 1876-78 cost 630 lakhs as against 98 lakhs in 1896-97. In the case of Bengal there is a sufficiently close correspondence between the areas affected and the degree of crop failure in 1873-74 and 1896-97 to establish the superior economy of the relief given on the late occasion. But the expenditure in 1873-74 is admitted to have been unnecessarily profuse, and the conditions of the north Behar districts have so greatly changed by the development of communications that the relief measures of that time are of little use as a precedent. Between 1873 and 1896 there have been two years in which the deficiency in the monsoon rains and the crop failure in Behar fell little, if at all, short of what occurred in 1873, without occasioning anything which

approached the nature of severe famine or called for relief measures on the scale of those of 1873-74. In the Bombay case there is a much closer parallel, as the areas and populations affected in 1876-77 and 1896-97, and the degree of crop failure and the course of prices, were very much the same. The slightly larger expenditure incurred in the late famine in Bombay is what might have been expected from the fact that the present prescriptions of the famine codes give relief on less rigorous terms than those adopted in 1876-78 by the Government of Bombay. Between the Madras famine of 1876-78 and that of 1896-97 the parallelism is too remote for useful comparison. In 1876-78, 14 districts, or two-thirds of the presidency, suffered from long continued drought and loss of crops, which began with deficient rains in 1875, were intensified by the failure of both monsoons in 1876 and protracted into 1878 by a failure of the south-west monsoon of 1877. In 1896-97 distress was confined to parts of four Deccan districts with a population of 2 millions and to parts of the three northern districts of Ganjam, Vizagapatam and Godavari, and it lasted for one year only. In respect of crop failure and area affected, the scarcity of 1891-92 in the Deccan and other districts of the Madras presidency, on the relief of which 18¼ lakhs were spent, affords a closer, though not an exact, parallel to the conditions prevailing in 1896-97. Prices rose to a higher point in the latter year, and whereas in 1892 early and excellent rains in June brought relief operations to a speedy termination, in 1897 the fate of the harvests hung in the balance till August.

The statistical tests applied to famine relief operations.

344. The statistical tests usually applied to famine relief operations are these: (1) the number of persons in receipt of relief of all kinds and the proportion which they bear to the total population of the distressed area: (2) the relative amount of gratuitous relief in each province: (3) the expenditure on relief, and particularly the cost of relief per unit relieved, under each prescribed mode of relief: (4) the expenditure on special establishments and miscellaneous charges: (5) the cost of the public works executed by relief labour as compared with the normal cost of such works: (6) the extent to which the works executed by relief labour are of permanent utility. We propose to consider the relief measures of each province in connection with these tests.

The numbers relieved in each province.

Figures showing total amount of relief given in each province.

345. It was thought by the Famine Commission that the proportion of the population of the whole famine area likely to be in receipt of relief in the worst months would not exceed 1·5 per cent., and for the whole period would not exceed 7 or 8 per cent. How far the relief figures of the late famine agree with these estimates will appear from the subjoined table, in which the material figures for comparative purposes are given. Under each province the tract most seriously distressed is separated from less distressed districts, and figures are separately given for each. In this way the high proportions to which relief attained in the most distressed localities, and the comparatively small amount of relief given in other localities, are brought out. In further illustration of this point we have added similar figures for particular districts in each province in which the greatest amount of relief was given.

Figures showing the total amount of relief given in each province.

Province and tract affected.	Population of affected tract.	Millions of units relieved.	Percentage of persons relieved daily on the affected population during			Particular districts.	Percentage of persons relieved on the affected population during	
			Whole period.	3 consecutive months.*	Highest month.	District.	3 consecutive months.	Highest month.
1	2	3	4	5	6	7	8	9
Bengal ... 1. Patna division...	7,628,000	110	5·3	7·6	7·7 June	Champaran	9·4	10·3 May.
2. Rest ...	3,735,000	22	2·4	4·2	4·4 June	Darbhanga	8·8	9·7 May.
North-Western Provinces and Oudh. 1. Four Bundelkhand districts.	2,297,000	102	14·8	22·8	27·8 May	Banda ...	32·9	42·1 May.
2. Other "famine" districts.	15,830,000	161	3·4	4·4	5·4 May	Jalaun ...	23·8	29·3 May.
3. Scarcity districts	9,854,000	19	0·7	·9	1·0			
Punjab ... 1. Hissar ...	544,000	12·2	9·3	12·5	14·0 May	Hissar ...	12·5	14·0 May.
2. Rest ...	2,613,000	10·2	1·8	2·1	2·4			
Central Provinces. 1. Jabalpur division.	1,830,000	62	10·3	11·8	15·3 May	Damoh ...	24·8	26·2 May.
						Jabalpur ...	15·1	19·6 April.
2. Rest ...	4,632,000	96	6·3	10·0	11·1	Balaghat ...	22·8	27·1 May.
Madras ... 1. Deccan ...	2,005,000	78	12·4	20·8	30·0 July	Kurnool ...	34·4	41·2 July.
2. Rest ...	3,043,000	16	2·2	4·1	6·1 July	Bellary ...	29·5	34·7 August.
Bombay ... 1. Bijapur and Sholapur.	1,546,000	62	12·1	15·7	16·3 September.	Bijapur ...	15·3	16·8 August.
2. Rest ...	5,319,000	57	3·2	3·4	4·9	Sholapur ...	16·0	17·6 April.
Berar	1,183,000	5	1·7	3·0	3·5 July ...	Melghat ...	8·8	9·7
Burma	381,000	8·6	6·0	8·0	8·2 July ...			
	62,440,000	821						

346. The North-Western Provinces and Oudh and Madras exhibit the highest ratios. In the former province for three months 22·8 per cent. of the population of the four Bundelkhand districts, and 32·9 per cent. of the population of one (Banda) of these districts, were in receipt of relief. In May the numbers on relief in the Banda district rose to 42·1 per cent. of the district population. In Madras for three months 20·8 per cent. of the population of the affected portions of four Deccan districts, and 34·4 per cent. of the population of the affected portion of one (Kurnool) of these districts, were on relief. In Kurnool in July the percentage rose to 41·2. No parallel to these figures is to be found in any previous famine, except perhaps in particular parts of Behar in 1873-74. They indicate either the existence of most acute and wide-spread distress, or exceptional liberality in the distribution of relief. There is no doubt as to the severity of the Bundelkhand famine, which has been described as the worst

High ratios in the North-Western Provinces and Oudh and in Madras.

* The three consecutive months taken are—

1. For Bengal and North-Western Provinces and Oudh ... ... March to May.
2. „ Punjab, Central Provinces and Berar ... ... May to July.
3. „ Madras ... ... June to August.
4. „ Bombay ... ... July to September.
5. „ Burma ... ... December to February.

famine in the century. That the measure of relief here given though large was not in any district in excess of what was required, is our opinion from the evidence, and may be inferred from the very moderate limits within which relief was kept in the other "famine" districts of the province where distress was undoubtedly great, and from the constant precautions taken by the Government of the North-Western Provinces and Oudh to make the conditions of relief stringent. In the Madras Deccan distress though severe was of a milder type, and the largeness of the numbers on relief during these months is admitted to be connected with the relaxation of tasks and increase of wages authorised by the Madras Government on the ground that the people were receiving insufficient relief, and that it was desirable to induce them to come freely to the works before their resources were exhausted or their strength impaired. The figures for the Bombay Deccan may be compared with those for the Madras Deccan, as in Bijapur and Sholapur the loss of crop was as complete as in the affected parts of Kurnool and Bellary. In Bijapur and Sholapur the proportion of the population on relief in the worst months did not exceed 17 per cent. The difference between this ratio and the ratio found in Kurnool and Bellary is, partly at least, due to the strict attitude taken up by the Government of Bombay with regard to the exaction of tasks, and the concentration and enforced residence of the workers on large works. We have already expressed our opinion as to the merits of this policy. Regarding it here from the standpoint of economy, it undoubtedly kept down the numbers on relief, while the policy preferred by the Madras Government augmented them.

Ratio in the Central Provinces and elsewhere.

347. The relief ratios of 11·8 per cent. to the population maintained in the Jabalpur division of the Central Provinces for three months, and of 10 per cent. in the rest of the province, are certainly not more than the degree and extent of the prevailing distress required. They are indeed lower than might be expected if they are compared with the ratios in the Bundelkhand districts where the type of famine was much the same. The higher figures reached in Damoh, Jabalpur and Balaghat are still below those of Banda and Jalaun in Bundelkhand. The figures of the other provinces call for no special remarks. The standard of 7 to 8 per cent. on the total population continuously maintained in the Patna division closely conforms with the estimate of the Famine Commission and is not excessive. In the Punjab the ratio of 12·5 per cent. maintained in Hissar for three months is not more than might be expected, as severe distress unquestionably prevailed in the district.

General conclusion as to the result of the numerical test.

348. Generally it may be said as the result of the numerical test that, although the high proportions which relief attained in particular localities suggest the necessity for carefully enforcing the conditions and restrictions prescribed by the codes, the figures as a whole are not such as to raise apprehension that famine relief in the future need outrun the capacity of the State or demoralise the people.

Expenditure on indirect relief.

349. In considering the number relieved in each province or part of a province, some regard must be had to the expenditure incurred on indirect relief in the form of loans and advances for agricultural works, and of suspensions and remissions of land revenue. The following table shows the extent to which the direct expenditure

on relief was supplemented in this way, and by assistance from the Indian Charitable Relief Fund :—

Province.	Percentage of average number daily relieved on the affected population.	Direct expenditure on relief excluding establishment and incidental charges.	Loans and advances.	Suspensions.	Remissions.	Indian Charitable Relief Fund.
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	4·4	86,12,707	22,49,115	.....	.....	20,65 636
North-Western Provinces and Oudh.	3·4	1,67,15,417	42,13,831	1,44,64,875	65,19,100	48,87,527
Punjab	3·2	18,11,905	13,76,639	21,19,157	74,470	11,73,822
Central Provinces ...	7·4	1,30,60 599	31,12,674	24,44,913	27,64,321	33,65,163
Madras	6·9	86,00,006	18,55 337	10,09,000	23,61,000	14,25,412
Bombay	5·2	1,18,69,634	52,96 982	9,67,484	48,977	14,84,950
Berar	1·7	5,57 893	1,25,036	67,706	23,030	1,92,795
Burma	6·0	10,36,809	1,81,905	.....	.....	3,09,266
Total ...	...	6,22,64,970	1,84,11,519	2,10,73,135	1,17,90,898	1,49,04,571

Loans and advances amounted to nearly 30 per cent. of the expenditure on direct relief, the proportion varying from 18 per cent. in Burma to 75 per cent. in the Punjab. The greater part of these advances were spent by the landowners in the employment of labour that would otherwise have come on to relief. In the Central Provinces Rs. 11,53,360 was advanced as famine loans without interest, under precautions which ensured their being expended almost entirely on the employment of labour on petty agricultural works. The suspensions and remissions of land revenue amounted to nearly 50 per cent. of the expenditure on direct relief. This percentage is however only approximate, as in some cases the amount shown as remitted is also included in the amount shown as suspended, and we have not been able to correctly differentiate the results. The figures in the last column of the table show the extent to which further assistance was given in the affected area from the Indian Charitable Relief Fund.

The relative amount of gratuitous relief in the several provinces.

350. The economic value of this test does not lie in the greater costliness per head of gratuitous relief. On the contrary gratuitous relief is the cheaper, and though the value of the work done diminishes the gross cost of relief works to the State, this value may in many cases be neglected as the works are of little or no utility. But in relief by means of works there exists or may exist a self-acting labour test which, if effective, affords a guarantee that the numbers relieved are not in excess of the numbers really in want. The Famine Commission recognised that the guarantee disappears if the task is light and discipline slack and the terms too easy : and it would not be safe to affirm that in the late famine it was always operative. Still, broadly speaking, the fact that on relief works labour is exacted in return for wages distinguishes this form of relief from others in which the labour test is not applied. It is therefore of some importance from the point of view of economy to ascertain in each province the extent to which gratuitous relief was given. This extent may be measured in two ways. First, by the proportion which the number of units gratuitously relieved bears to the number relieved by means of works : and second, by the percentage

The value of this test.

ratio of the numbers on gratuitous relief to the total population. The material statistics as to gratuitous relief are contained in the subjoined tables. Table (1) gives the total number of persons relieved from first to last in the late famine, and the proportion relieved respectively by relief works and by gratuitous relief. Table (2) gives the proportions of relief in these two forms at successive stages of the famine in each province. Table (3) gives the proportion of the total population of the affected tracts gratuitously relieved in each province in particular months. Table (4) illustrates a closer and more detailed comparison between the relief figures of selected districts, in which the amount of relief given was very large.

Table (1).—Ratio of relief through works to gratuitous relief for whole period of relief operations.

Province.	Number of units (in millions).			Percentage of units relieved by relief works.	Percentage of units relieved gratuitously.				Percentage of units specially relieved through their trade.
	Relief workers.	Otherwise relieved.	Total.		Dependants.	Kitchens.	Poor-houses.	Home relief.	
1	2	3	4	5	6	7	8	9	10
Bengal	61	71	132	46·0	3·0	4·5 (1)	·5	46·0	*Nil.*
North-Western Provinces and Oudh.	159	123	282	56·0	12·4	...	4·3 (6)	27·3	*Nil.*
Punjab	16	6·5	22·4	71·0	15·4	2·5 (2)	1·2	9·6	·3
Central Provinces ...	84	74	158	53	9·5	6·0 (3)	5·0	25·5	1·0
Madras	67	27	94	71·0	...	7·2 (4)	*Nil*	15·0	6 8
Bombay	82·5	36·5	119	69·4	12·4	6·7 (5)	·3	11·2	*Nil.*
Berar	3·5	1·5	5	67·5	11·5	*Nil*	9·0	12·0	*Nil.*
Burma	6·0	2·5	8·5	70·0	25·0	*Nil*	*Nil*	5·0	*Nil.*
TOTAL ...	479	342	821	58·4	...	...	...	...	...

(1) and (4). In Bengal and Madras, kitchens were maintained both for the support of dependants of relief workers, and also apart from relief works instead of gratuitous village relief.

(2) and (5). In Bombay and the Punjab, kitchens were exclusively established in connection with relief works for the relief of dependants of the workers.

(3). In the Central Provinces, kitchens were largely employed for the relief of children in the last months of the famine. The numbers shown here also include persons relieved in "relief centres."

(6). In the North-Western Provinces the numbers shown under "poor-houses" include also the numbers relieved in kitchens.

Table (2).—Percentage of persons relieved otherwise than by relief works to total number of persons receiving relief on the last Saturday of particular months.

Province.	END OF																	
	FEBRUARY.				MAY.				JULY.				SEPTEMBER.				OCTOBER.			
	Relief workers.	Otherwise relieved.	Total.	Percentage of otherwise relieved to total.	Relief workers.	Otherwise relieved.	Total.	Percentage of otherwise relieved to total.	Relief workers.	Otherwise relieved.	Total.	Percentage of otherwise relieved to total.	Relief workers.	Otherwise relieved.	Total.	Percentage of otherwise relieved to total.	Relief workers.	Otherwise relieved.	Total.	Percentage of otherwise relieved to total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bengal ...	236,000	147,000	383,000	38·4	388,000	451,000	839,000	53·8	167,000	397,000	564,000	70·4	23,000	17,000	40,000	42·5	9,000	4,000	13,000	30·8
North-Western Provinces.	1,120,000	577,000	1,697,000	34·0	975,000	509,000	1,484,000	34·3	81,000	421,000	502,000	83·9	20,000	373,000	393,000	94·9	...	...	31,000	...
Punjab ...	91,000	38,000	129,000	29·5	67,000	30,000	97,000	30·9	21,000	15,000	36,000	41·7	4,000	1,500	5,500	27·3	...	...	...	...
Central Provinces	217,000	115,000	332,000	34·6	480,000	212,000	692,000	30·6	342,000	259,000	601,000	43·0	229,000	403,000	632,000	63·8	82,000	316,000	398,000	79·4
Madras ...	53,000	13,000	66,000	19·7	312,000	92,000	404,000	22·8	537,000	268,000	805,000	33·3	158,000	100,000	258,000	38·8	13,000	10,000	23,000	43·5
Bombay ...	278,000	130,000	408,000	31·9	235,000	97,500	352,500	27·7	282,000	131,000	413,000	31·7	299,000	78,000	377,000	20·7	49,000	66,000	115,000	57·4
Berar ...	7,000	...	7,000	...	28,000	11,000	39,000	28·2	17,000	12,000	29,000	41·4	2,000	5,700	7,700	74·0	600	1,700	2,300	73·9
Burma ...	23,000	4,000	27,000	14·8	15,000	3,000	18,000	16·7	27,000	7,000	34,000	20·6	13,000	4,000	17,000	23·5	8,800	3,100	11,900	26·1
Total ...	2,025,000	1,024,000	3,049,000	33·6	2,520,000	1,405,500	3,925,500	35·8	1,474,000	1,510,000	2,984,000	50·6	748,000	982,200	1,730,200	56·8	162,400	400,800	594,200	67·5

Table (3).—Ratio of persons gratuitously relieved to population affected.

		February.	May.	July.	September.	October.
1		2	3	4	5	6
Bengal	Patna division ...	3·0	4·4	3·9	·06	...
	Rest	·15	2·7	2·3	·03	·1
North-Western Provinces and Oudh.	Four Bundelkhand districts.	5·7	7·0	5·6	2·8	·3
	Other "famine" districts.	0·8	2·1	1·5	0·7	...
	Scarcity districts ...	·4	·3	·4	·2	...
Punjab	Hissar	2·3	2·2	3·2	·7	...
	Rest	·9	1·0	·4	·03	...
Central Provinces ...	Jabalpur division ...	4·1	5·4	6·0	7·4	6·0
	Rest	·9	2·7	3·6	5·8	2·2
Madras	Deccan	·5	2·9	6·9	4·0	·5
	Rest	·04	1·1	4·2	·06	...
Bombay	Deccan	4·2	3·2	3·5	3·9	1·5
	Rest	1·2	·9	1·3	1·6	·8
Berar	... ...	...	1·0	1·0	·6	·1
Burma ...	... ...	1·0	1·0	2·0	1·0	·8

Table (4).—Ratios of relief workers and of persons on gratuitous relief to affected population of certain districts.

		April.			May.			June.			July.			August.			September.		
		Workers.	Gratuitously relieved.	Total.	Workers.	Gratuitously relieved.	Total.	Workers.	Gratuitously relieved.	Total.	Workers.	Gratuitously relieved.	Total.	Workers.	Gratuitously relieved.	Total.	Workers.	Gratuitously relieved.	Total.
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bombay.	Bijapur ...	6·5	3·2	9·7	6·0	2·6	8·6	6·4	2·3	8·7	9·8	3·1	12·9	13·1	3·7	16·8	13·0	3·8	16·8
	Sholapur ...	11·9	5·7	17·6	11·7	4·7	16·4	10·7	4·2	14·9	9·7	4·3	14·0	10·6	5·0	15·6	10·8	5·4	16·2
Madras.	Bellary ...	10·6	·8	11·4	15·7	1·8	17·5	18·9	3·9	22·8	26·2	5·1	31·3	29·5	5·2	34·7	17·8	4·4	22·2
	Kurnool ...	10·3	·6	10·9	20·7	2·1	22·8	19·9	·8	20·7	32·4	8·8	41·2	27·9	8·5	36·4	18·4	4·3	22·7
Bundelkhand.	Banda ...	20·0	7·7	27·7	32·1	10·0	42·1	18·5	10·4	28·9	4·3	9·8	14·1	·9	9·4	10·3	·6	6·4	7·0
	Jalaun ...	20·4	5·1	25·5	21·1	8·1	29·2	80·1	10·1	30·2	3·8	7·0	10·8	*Nil*	5·0	5·0	*Nil*	4·0	4·0
Central Provinces.	Damoh ...	13·2	7·0	20·2	17·0	9·2	26·2	14·0	8·8	22·8	15·6	9·7	25·3	5·0	9·8	14·8	5·7	10·8	16·5
	Jabalpur ...	11·0	8·6	19·6	9·9	6·5	16·4	4·4	5·2	9·6	6·6	8·8	15·4	4·0	9·6	13·6	4·2	7·6	11·8
	Balaghat ...	15·3	8·0	23·3	18·7	9·2	27·9	11·0	6·7	17·7	11·6	11·9	23·5	12·7	6·9	19·6	7·7	11·6	19·3
	Raipur ...	11·7	3·4	15·1	10·6	5·6	15·0	5·9	3·2	9·1	5·8	3·7	9·5	3·4	5·7	9·1	5·1	6·4	11·5
	Bilaspur ...	2·0	1·1	3·1	2·9	2·6	5·5	2·7	3·9	6·6	4·0	5·5	9·5	3·8	7·2	11·0	4·0	8·8	12·8

Large volume of gratuitous relief explained.

351. From Table (1) it will be seen that, taking the whole volume of relief given in the late famine, 42 per cent. of it took the form of gratuitous relief. This at first sight seems an unexpected result from the recommendations of the Famine Commission of 1880, which attached such great importance to the imposition of a labour test on all persons capable of doing any work. There is no doubt that the development of this form of relief, and especially of gratuitous relief in the homes of the people, is a distinctive feature in the administration of the late famine. The perfecting of the system of village and circle relief organization has greatly contributed to this, as have also the instinctive efforts of the local Governments and their officials to raise the standard of relief, and their discovery that in no other way can distress among the weakest and most helpless of the community be so satisfactorily alleviated. In further explanation of the great proportions attained by gratuitous relief it may be remarked that as the principle of famine relief works is to confine the wage of the relief worker to what is sufficient for his own subsistence only, separate relief has to be given to the members of his household who are incapable of work. It may also be remarked that famine at once affects the incapable poor who in ordinary years depend on private or village charity, and that this class is the last to return at the close of a scarcity to its ordinary mode of existence. Again, in the last months of famine or scarcity when the rains have set in and relief works are being contracted, the numbers on gratuitous relief naturally gain on the numbers on works. This is especially the case when, as in the Central Provinces or the Bundelkhand districts of the North-Western Provinces, distress has been very severe and prolonged. In such circumstances, however favourable may be the prospects of the crops, private or public charity or the natural obligations of the able-bodied towards their weakly relations cannot, it is found, be relied upon to support the young, the aged and the infirm among the poorest classes. Able-bodied labourers find in such a time that employment is exceptionally scanty and precarious, and the low wages which they have to accept are insufficient, with food at famine prices, for the maintenance of themselves and their families, That the general condition of this class should deteriorate in such circumstances is not surprising, and it has been proved in the late famine that the only way in which extreme suffering and increased mortality can be prevented in a severely distressed district is by the expansion of gratuitous relief during the rains, and its continuance until with the ripening of the early rain crops the situation becomes easier. In proportion as distress has been comparatively slight and of short duration, it is less necessary, if prospects be favourable, to expand gratuitous relief during the later stages of famine or scarcity, or to continue it into the late autumn months. These are the general principles which the late famine has illustrated, and they explain in a great measure the variations discernible in the gratuitous relief figures of the several affected tracts.

High proportion of gratuitous relief in Bengal.

352. Turning to the provincial statistics contained in Table (1), the provinces in which the proportion of gratuitous relief was highest are Bengal, the North-Western Provinces and the Central Provinces. From Table (2) it will be seen that Bengal is differentiated from the other two provinces by the high proportion which gratuitous relief attained in May before the rains had broken. By that time over half

the persons in receipt of relief in Bengal were gratuitously relieved. This circumstance was much discussed at the time, and we have elsewhere stated the causes which appear to have led to it, and have described the elaborate organization which was extemporised in Behar for the purpose of administering village gratuitous relief and the great care taken to bring on to relief all cases of helpless destitution in a population which is extremely dense and in its lower ranks very poor. It is also probable that the strict enforcement of the labour test and the exaction of high tasks on the works led to weakly adults and children being placed on gratuitous relief, who in other provinces would have been enrolled as nominal workers on the relief works. It will be seen from Table (3) that the percentage of persons gratuitously relieved in May in the Patna division was 4·4 per cent. of the population of the affected area. Higher percentages than this are recorded against the Bundelkhand and Jabalpur divisions, but the comparison is affected by the greater distress which there prevailed. On the whole we are of opinion that gratuitous village relief was carefully controlled and economically administered in the Patna division of Bengal, though this necessitated the entertainment of large establishments. In one or two districts in Bengal outside the Patna division it was given at first with insufficient discrimination, and without due regard to economy.

High proportion of gratuitous relief in the North-Western Provinces.

353. The high proportion which gratuitous relief in the North-Western Provinces and Oudh appears from Table (1) to bear to relief through works is due, not to expansion of gratuitous relief, but to the great contraction of relief works in the province as soon as the rains set in. This is clear from the July figures given in Table (2). We have elsewhere discussed the considerations involved in the policy adopted by the local Government. It need scarcely be said that gratuitous relief in the North-Western Provinces and Oudh was administered with the strictest regard to economy. The percentage of the numbers gratuitously relieved to the total population was high in the Bundelkhand districts, but by no means higher than the intensity of the famine justified. In the other districts in the province in which the existence of "famine" was officially recognised and which included such sorely distressed districts as Allahabad and Hardoi, the percentage of gratuitous relief was throughout the relief operations much lower than that obtaining in Behar.

High proportion of gratuitous relief in the Central Provinces.

354 The high proportion of gratuitous relief shown against the Central Provinces in Table (1) is accounted for by the figures for successive months given in Table (2) and by the pecentage incidences of gratuitous relief on the population figures given in Table (3). Gratuitous relief continued to expand till the end of September 1897 and was maintained on a scarcely diminished scale throughout October, while the relief workers dwindled down to small numbers. Large as gratuitous relief was in these months we have no hesitation in pronouncing that it was all required by the bad state of the public health at that time. There is evidence, however, that had more relief by means of works been given in Bilaspur in the early months of the famine, less gratuitous relief might have been needed in that district from July onwards. We think that to some extent this was also the case in other parts of the province.

Proportion of gratuitous relief in the other provinces.

355. In the five other provinces a considerably smaller proportion of the relief given was gratuitous: and it will be seen from Table (3) that, except for a short period in the Madras Deccan, the proportion of the total population of the affected tracts in those provinces in receipt of gratuitous relief was considerably less than in the severely distressed tracts in the North-Western Provinces and the Central Provinces. Between May and July there was a very large addition in Madras to the numbers gratuitously relieved, but, as there was an almost equal increase in the numbers on relief works, the ratio between the two forms of relief shown in Table (2) against Madras did not materially alter.

Different methods of giving gratuitous relief.

356. In Table (1) the distribution of gratuitous relief under its various sub-divisions is shown. They tend however to run into each other. Where it was the practice to relieve the non-working relatives of the workers at the relief works by cash allowances they were classed as "dependants." Where, as in Bengal, they were ordinarily placed on the village gratuitous lists, they came under "home relief," and where, as in Madras and Bombay, they were frequently relieved by cooked food in kitchens, they were shown under "kitchen relief." As regards the respective economy of these three methods of relieving dependants, it seems to be generally agreed that relief by means of kitchens was the most economical. It was believed in Bombay and elsewhere that the system of giving parents a fixed money allowance over and about the worker's wage for every child brought by them to the works, attracted persons who were not in actual want and who had no intention of doing a fair day's work: and that cooked food acted as a good and not too stringent a test, at all events in the case of child dependants. As between the alternatives of relieving the "dependants" on the works and placing them on the village gratuitous list, the preference was given to the former on economical grounds by the North-Western Provinces and Oudh Government, which held that the requirement of residence on the works operated as a test of necessity. In Bengal, on the other hand, the circle relief agency was considered to be sufficiently strong to dispense with such a test, and in point of fact it cannot be applied when the relief works are so near the villages of the workers that the latter do not reside on the works. In Bengal, however, the practice of relieving child dependants by means of kitchens established either on the works or in an adjoining village was commonly adopted in the last months of the famine, and was favourably regarded by the relieving officers.

Poor-houses.

357. As regards poor-houses they are necessary institutions, and the expenditure on them and the numbers admitted to them in different provinces depended so much on varying local conditions that no question of comparative economy arises. In Madras the stage of distress which necessitates poor-houses is said not to have been reached; but kitchens were very numerous, and it is probable that beggars and wanderers received in these the aid which in other provinces they could only obtain by becoming inmates of a poor-house. In the North-Western Provinces and Oudh and in the Central Provinces the extent to which poor-houses were resorted to denotes the existence there of a large population which either had no settled home or under stress of want had drifted from its place in society. It is possible that the poor-house numbers might have been somewhat reduced by greater extension of the village relief system. But with famine as intense as it

was in these provinces and with immigrants pouring into them from native states a considerable poor-house population was inevitable.

Comparison of detailed figures for particular districts.

358. With regard to the detailed figures given in Table (4) for particular districts in which the amount of relief given was exceptionally large, the comparison between the figures for the two worst districts in the Bombay Deccan and the two worst districts in the Madras Deccan is of interest. It will be observed that the excess in numbers relieved in the Madras districts commenced in May, and that it first showed itself in the numbers of the relief workers, whose tasks by that time had been largely reduced and whose wages had been raised. In July and August the excess over the Bombay figures was great, and it must be remembered that in July the numbers on gratuitous relief were also much higher than in the Bombay Deccan. If the extent and degree of distress were approximately the same in the Bombay and Madras districts, it is difficult to avoid the inference that economy was more successfully exercised in the former province. On the other hand, the figures for the two selected districts in the North-Western Provinces show an amount of relief during April, May and June largely in excess of what was given in those months in the Madras districts, and it may be argued from this that the relief given in the Madras Deccan was not excessive. The character of the distress existing in Bundelkhand and the evidence before us as to the economical spirit which pervaded the relief administration of the North-Western Provinces forbid us to think that the numbers admitted in Banda and Jalaun to relief were excessive. We have no doubt that distress was less intense in Madras than in Bundelkhand. But we are unable to quantitatively determine the difference in intensity, or to say how far this difference ought to influence the view taken of the relief figures of the Madras Deccan. With regard to the figures of the five selected districts in the Central Provinces, it is sufficient to remark that the districts were among the most distressed in the province. The Bilaspur figures taken in relation to those of the neighbouring district of Raipur show the insufficiency of the relief afforded in the earlier months of the famine in this district, and explain the larger amount of gratuitous relief which had to be there given in the later months.

The expenditure on relief and the incidence per unit relieved.

Difficulty of effecting a comparison of the wage-rate.

359. *Wages of workers.*—It is not easy to exactly ascertain or fairly compare the wage-rate in different provinces, owing to want of uniformity in the returns. In some the amount shown as paid to workers includes payments to works establishment, and on account of contingencies or miscellaneous items; in some it includes the allowances to dependants. In some the workers and dependants are not shown separately, while others do not give the total number of day units of workers relieved, or the proportions of men, women and children. It is possible however to eliminate the uncertainties due to these causes by making assumptions that can involve but a very small margin of error, and so to ascertain approximately the average wage in each province in terms of both the worker unit and the male unit. The wage per worker unit is the average wage drawn by every worker, irrespective of age and sex, while the wage per male unit is that which is derived by reducing the number of workers to male units, on the assumption that every male receives the male unit wage and every woman and child three-quarters and

three-eighths respectively of the same wage. These proportions follow very closely the proportions of the wages that have been actually paid in Northern India during the late famine and also those which we shall recommend for adoption in future, and by adopting them it is possible to fairly compare wages even when the proportions of men, women and children differ greatly.

Analysis of wage-rates.

360. When the wage-rate per male unit has been worked out for each province, there is another element however to be considered in the comparison of wages, *viz.*, the average price of grain on which wages have been calculated. The exact determination for each province of the average grain price on which wages were actually based is not possible with the data available, but it is believed that the figures given in column 8 of the following table may be accepted as substantially correct :—

Province.	Number of worker units employed.	Percentages.			Wage rate per worker unit	Wage rate per male unit.	Average wage basis per rupee.	Wage rate per male unit on a basis of 20 lbs. to a rupee.	Grain wage per male unit in ounces.
		Men.	Women.	Children.					
1	2	3	4	5	6	7	8	9	10
	Thousands	Per 100.	Per 100.	Per 100.	Annas.	Annas.	lbs.	Annas.	Ozs.
Behar (task-work) ...	50,702	43	40	17	1·19	1·50	22	1·65	33
Behar (piece-work) ...	1,963	50	36	14	1·94	2·34	17	1·99	40
All Bengal ...	61,296	45	37	18	1·41	1·76	21	1·85	37
North-Western Provinces.	145,042	32	41	27	1·10	1·51	22	1·66	33
Punjab ...	15,889	42	39	19	1·52	1·95	20	1·95	39
Central Provinces ...	74,707	31	46	23	1·55	2·09	16	1·67	33
Central Provinces (civil works).	9,610	28	47	25	1·79	2·49	16	1·99	39
Madras Deccan ...	60,120	28	52	20	1·48	1·99	24	2·38	48
Bombay ...	80,000	32	44	24	1·83	2·47	17	2·10	42
Berar ...	3,486	34	49	17	2·05	2·66	17	2·26	45
Burma ...	6,562	24	58	18	2·35	3·17	18	2·85	57
TOTAL ...	456,712	33	44	23	1·44	1·94	20	1·94	39

The figures for the North-Western Provinces and for Bombay relate to the transactions in the Public Works Department only. The average wage basis rate in column 8 is approximately the rate which on the classification and wage scale in force in each province would result in the payment of a wage bill equal to that actually incurred. It is not necessarily the average rate at which grain was obtainable, because in some provinces, particularly in the North-Western Provinces and to a less extent in Bengal, the wage basis was generally fixed on a higher grain-rate than the market rate, for special reasons which were considered to justify the difference by the authorities who fixed the wage basis. In column 9 we have reduced the wage-rate per male worker unit of each province shown in column 8 to a common basis for the purpose of comparison, and in column 10 we have shown the food equivalent of the wage-rate of the several provinces thus reduced to a common basis. For facility of description we shall refer to the comparative wage figures of column 9 as the "reduced wage-rate."

Low wage-rate in some provinces.

361. The first point to be noticed is the practical identity of the reduced wage-rate of Behar, the North-Western Provinces and the Central Provinces, and its comparative lowness. This is due to the introduction in these provinces of the North-Western Provinces wage scale and classification. The grain equivalent is given in column 10 as 33 ounces, but in reality it was less than this owing to the difference generally obtaining between the wage basis and the market rate for grain. This difference also existed, though to a less extent, in the Central Provinces, but the actual grain equivalent was here also less than indicated by the figures, as the amount paid as wages included the commission to contractors in those districts in which contractors were employed. This system is said not to have been very extensively employed, but some allowance must be made on its account. It is in evidence that when contractors were employed the commission amounted to not less than 25 per cent. on the amount paid to labour, and in at least one case to at least as much as 50 per cent. Taking this into consideration it is probable that the actual grain wage received by the labourers in the Central Provinces was even below that which obtained in the North-Western Provinces. It may be doubted whether these wages were sufficiently liberal except perhaps in Behar, where the unavoidable proximity of the works to the homes of the labourers justified a very low wage.

High rate to piece-workers in Behar.

362. The next point to be noticed is the comparatively high wage paid to piece-workers in Behar. Piece-workers were less than 4 per cent. of the total number of labourers employed, and the works were at a distance from their homes. If allowance be made for the fact that they received no Sunday wage and no allowances for dependants, the disparity between their average wage and the wage of the task-workers is considerably lessened. It is also a fact that the piece-workers did more work than the task-workers in return for their wages.

Wage-rate in other provinces.

363. In the Punjab and Bombay the code system of classification was more closely adhered to than in the other large provinces, and the reduced wage-rate in either province averaged about 2 annas. It appears probable that the Bombay wage includes the cost of hutting, as no separate miscellaneous expenditure has been shown, and, if so, this will explain the high rate, which under any circumstances cannot be regarded as very excessive when the distances from which many labourers had to attend the works are considered. The high rate in the Madras Deccan is mainly due to the system of classification, and when considered with reference to the general proximity of the works to the homes of the labourers and the leniency shown in the matter of tasks, it probably was for a time unnecessarily high and attractive. This conclusion is confirmed by the large percentage of the population that during this time flocked to the works. It may be added that the Madras rate was higher relatively to other provinces than shown by the figures, as children over 12 were classed as adults, and have so been regarded in these calculations, as their number is not known. We have however recommended that they should be so classed everywhere in future. The rate in Berar was almost as high as in the Madras Deccan, but this is partially due to the fact that in the Melghat, in which 15 per cent. of the workers were employed, the wages were calculated so as to include the Sunday wage and relief of dependants.

Wage-rate in Burma.

364. In Burma the workers were almost all in receipt of the B wage except towards the close of operations, but the Burma code allows a cash addition to the code grain wage, which accounts for the high rate per worker unit, It must also be borne in mind that the Sunday wage is not paid separately, but is included in the week-day wage, which for purposes of comparison should be reduced by about one-eighth on this account. The women in Burma, who formed 58 per cent. of the workers, are more capable workers than elsewhere, and are almost as efficient as the men, so that the rule for reducing to male units is not fairly applicable to this province, and the resulting rate per male unit is unduly enhanced. The high wage in this province was however accompanied by rigorous fining in strict proportion to the shortness of work outturned, and as the labourers were employed at a great distance from their homes on large and useful public works and the actual cost of their work bore a high proportion to its normal value, the expenditure on wages cannot be regarded as uneconomical.

Comparison of cost of gratuitous relief.

365. *Gratuitous relief.*—In comparing the cost of gratuitous relief per unit, it is also necessary to consider the grain-rate and the proportion of children to adults, but not the proportion of men to women among the adults, as the difference between the allowances made to male and female adults is never large and in many cases has been *nil.*. In statement B at page 236 the cost of gratuitous relief has been shown for all the principal forms of relief in terms of units relieved and also of "*adult units,*" the rate per adult unit being calculated on the assumption that two children are equal to an adult unit. As in the table in paragraph 360 showing the wages of workers, the penultimate column of the statement shows the cash wage reduced to a basis of 20 lbs. to the rupee, and the last column shows the equivalent grain wage in ounces per adult unit. As the various forms of gratuitous relief are under very different conditions, it will be convenient to consider each separately.

Dependants.

366. A question of some interest in connection with this form of relief is the proportion which the number of dependants bears to the number of relief workers. The average percentage for each province as struck over the whole period of operations is as follows :—

Bengal	7	Madras	7
North-Western Provinces ...	24	Bombay	28
Punjab	25	Berar	16
Central Provinces ...	20	Burma	14
All India	18		

The proportions are very small in Bengal and Madras. In the former province, where the works were generally near the villages, the number of non-working children on the works was always small. In Madras relief to dependants was always given in kitchens or by grain doles, and the former are said to have been very unpopular. The dependants, though separately returned, were sometimes relieved in the villages and not on the works, while on the other hand relief was sometimes given at the works' kitchens to others than dependants on the workers. The cost of relieving dependants in Madras has been included in that of home relief and of kitchens, and cannot therefore be shown separately in statement B. In Burma the number was also small, and in Berar the low percentage is due to the fact that in the Melghat there were no dependants, but a higher wage than the normal was given to the workers to enable them to maintain their depend-

ants in their homes. In the four remaining provinces the percentage varied from 20 in the Central Provinces to 28 in Bombay, though in the code of the latter province it was anticipated that the proportion would not normally exceed 10 per cent. The cash allowances paid to non-working children in the earlier stages of famine in both these provinces resulted in excessive numbers of children attending the works, many of whom were thought not to belong to the workers, but with the introduction of kitchens the numbers decreased. Probably from 20 to 25 per cent. may be regarded as a normal and reasonable proportion, when the workers bring all their children to the works.

Grain allowance of dependants in the different provinces.

367. The codes contemplate a grain allowance of 28 ounces to an adult male and 26 ounces to an adult female, children receiving from one-quarter to three-quarters of the allowance for an adult, or on an average about one-half. Statement B shows that in Bengal and the North-Western Provinces the adult unit received 15 and 16 ounces respectively. This is primarily due to the introduction of the North-Western Provinces rules of December 1896, under which the adult allowance was reduced to 24 ounces for males and 20 for females, while non-working children under seven were allowed 6 ounces only, one pice being given for children in arms. In these, as in all provinces, non-working children formed 90 per cent. or over of the whole number of dependants, and the effect of the small allowance given to them, less than one-third of that prescribed for adults, has been to greatly reduce the rate for the adult unit. In the Central Provinces the same rules were introduced, but the average rate per adult works out to 24 ounces, or 50 per cent. higher than in the North-Western Provinces. This is probably due to the earlier and more extensive substitution of kitchens for a cash allowance, but unless the rations were also increased the difference must be partially due to expenditure on items other than food being charged against the kitchens, and it is not very clearly accounted for. It should be added that in statement B, as in the table showing the average wage paid to workers, the rate shown as the average grain basis is the average rate on which wages were calculated, and not the average rate at which grain was actually purchaseable, so that the grain allowances in Bengal and the North-Western Provinces must have been less than shown in the statement, when the allowances were given in cash. The rate per unit in Burma was equivalent to an allowance of 6½ ounces only, but the rate per male unit cannot be given, as the proportion of children to adults has not been reported. The Burma code however, while allowing a higher wage to workers than other codes, prescribes a very small allowance for dependants. The rate shown for Berar is not reliable as the data are insufficient, and has been assumed in order to obtain the approximate wage paid to workers. As already explained, the Madras rate cannot be given. In the Punjab and in Bombay it averaged 21 ounces per male unit, which is a fair rate though somewhat less than contemplated in the codes.

Home relief.

368. The average rates per adult unit are as follow:—

	Ounces.		Ounces.
Bengal	17	Central Provinces ...	20
North-Western Provinces ...	18	Madras	33
Punjab	22	Bombay	32

They are again remarkably low in Bengal and the North-Western Provinces, being only 17 and 18 ounces respectively. Under the Bengal code the grain

allowance for adults relieved in their homes is one pound, half a pound being allowed for a child, and when allowance is made for the difference between the wage basis assumed in the statement and the actual grain rate, the true grain allowance was probably close upon 16 ounces. The North-Western Provinces rules provide that home relief should be given on the same scale as prescribed for dependants in the rules of December 1896, and this allowed 24 ounces for a male and 20 ounces for a female adult. Here again however the fixed rate per adult unit has been affected by the low allowance for children, which is only a quarter of that for an adult male. The proportion of children on home relief was 24 per cent. only, but if they are reckoned as quarter units, the resulting average grain wage per adult unit would not exceed 20 ounces, though 30 per cent. of the adults were males, and the average rate should have been over 21 ounces. The operation of the pice rule, which has been referred to elsewhere, will probably account for this difference. As the allowances were generally paid in cash, and the market rate was frequently much below the rate on which wages were based, the rate must have been much less than 18 ounces per adult unit. In the Central Provinces the grain allowance on home relief works out to 20 ounces per adult unit, which is not much less than contemplated by the North-Western Provinces rules of December 1896, it being remembered that 70 per cent. of the adults relieved were females. In the Punjab the rate per adult unit was 22 ounces. In Bombay the rate works out to 32 ounces, but home relief includes allowances to village servants, and this probably accounts for the high rate. The proportion of males was also high, 60 per cent. of the adults relieved being men. In Madras the grain wage averaged 33 ounces per adult unit, though 28 ounces is the code allowance for adult males, and two-thirds of the adults on home relief were females. It is not easy to explain this high figure, unless the expenditure shown includes charges other than incurred on actual relief. If for purposes of village relief children over 12 were classed in Madras as adults as they were on the relief works, the rate as compared with other provinces will be even higher than indicated in the statement. The rates for Berar and Burma cannot be stated in terms of the adult unit, or so as to be comparable with other provinces.

Poor-houses and kitchens.

369. The grain rates per adult unit in poor-houses and kitchens deduced from the reports are as follow:—

	Ounces.			Ounces.	
Bengal ...	28	Poor-houses.	Central Provinces	38	Poor-houses.
	24	Kitchens.		15	Kitchens.
North-Western Provinces ...	39		Madras ...	45	Kitchens.
			Bombay ...	45	Poor-houses.

In the North-Western Provinces the expenditure on poor-houses and kitchens has not been shown separately. The rate per adult unit in these institutions is much higher than for other forms of relief in these provinces. This is partly due to the fact that in poor-houses the rations are not restricted and may be increased under the order of the medical officers in charge, and as the inmates generally arrive in a very emaciated condition it is often necessary to give more liberal rations than contemplated in the code. The expenditure under this head probably also includes in all provinces other outlay connected with the maintenance of poor-houses besides the mere cost

of rations. In Bengal and the Central Provinces the cost of poor-houses and kitchens has been shown separately. In the former, the rates per adult unit are low compared with other provinces, but much higher than in the case of dependants and village relief. In the latter, the cost of poor-houses per adult unit is, as might be expected, high, though not so high as the rate for poor-houses and kitchens in the North-Western Provinces. The rate per adult unit for relief centres and kitchens in the Central Provinces is however remarkably low, amounting to only 15 ounces. These institutions were established in the Central Provinces before village relief was fully organized and when the rush for relief was very great, with the object of supplying a meal to every applicant without enquiry, and it was not intended that the relief to individuals should be on the same scale as in the regular village relief. The ration was limited to 18 ounces for a man and 14 for a woman, and the rate per adult unit given in the statement is probably very nearly correct. In Bombay the cost of poor-house relief was high, the rate per adult unit being 45 ounces, but the total expenditure did not amount to Rs. 50,000, and the operations were on too small a scale to justify this being regarded as a normal rate. In Madras there were practically no poor-houses. But if there were no poor-houses, kitchen relief appears to have been given in this presidency on a scale of extraordinary liberality, as the grain cost per adult unit was not less than 45 ounces, or considerably in excess of the code wage for an adult male of the A class, which is 42 ounces only. It is of course true that a certain amount of expenditure occurs in the maintenance of kitchens other than the purchase of food, and that the actual grain allowances were less than shown in the statement, but this applies to all provinces, and when allowance is made for it, the cost of kitchen relief in Madras appears to have been excessive. There were no poor-houses in Burma, and in the Punjab and Berar the expenditure on them was small and the cost per adult unit cannot be given, but the grain cost may be taken in each at 22 ounces per unit relieved.

Weavers.

370. Statement B gives particulars of relief to weavers and others in Madras, the Central Provinces and the Punjab, although this is, strictly speaking, not gratuitous relief. In Madras no less than Rs. 11,49,095 were spent in the relief of weavers at their trade, but it is anticipated that fully half this amount will be recovered by the sale of cloths, and on this assumption the relief afforded appears to have been at the rate of 37 ounces per adult unit, which is not excessive. In the Central Provinces and the Punjab the operations were on a smaller scale, and details have not been given in the provincial reports, but the cost in grain appears to have been at the rate of 22 ounces per adult unit in both provinces; or less than the full code allowance for an adult on gratuitous relief.

General incidence of cost of relief per 1,000 units relieved.

General cost of relief in each province

371. Having now examined and compared the wages paid to workers and the cost of various other forms of relief we may pass to the consideration of the general cost of relief in each province in terms of a thousand units relieved. In the following table we first show the actual rate of expenditure incurred per 1,000 units in each province and then for comparative purposes we endeavour to show what this rate would have been had the price of grain, on which the cash wages and doles are based,

been the same throughout the famine in all provinces. The last column of the statement gives the results of this hypothesis :—

Province.	Cost per 1,000 units relieved (actual).		Average wage basis in pounds per rupee.	Cost per 1,000 units relieved reduced to a grain rate of 20 lbs. per rupee.				
	Total expenditure under all heads.	Direct famine relief, excluding incidental charges.		Direct relief reduced to a uniform price basis.	*Incidental charges (actual).*			Total expenditure under all heads.
					Establishments.	Other items.	Total incidental.	
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	lbs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	82	65	21	68	7	10	17	85
North-Western Provinces and Oudh...	70	59	22	65	4	7	11	76
Punjab	100	81	20	81	7	12	19	100
Central Provinces	99	83	16	66	...	...	16	82
Madras (*a*)	99	86	24	103	4	9	13	116
Bombay	106	100	17	85	3	3	6	88
Berar	109	106	17	90	3	...	3	93
Burma	141	123	18	111	7	11	18	129
All India	89	76	20	76	...	...	13	89

(*a*) The rates in columns 2, 3, 5 and 9 have been struck after excluding from expenditure the sum of Rs. 5,74,547 estimated as recoverable by sale of cloths woven by weavers.

Variations in the general cost of relief in the different provinces.

372. It will be seen from column 2 that the actual cost per 1,000 units relieved, including all incidental charges, varied from Rs. 70 in the North-Western Provinces to Rs. 141 in Burma, but that, if the cost of direct relief is considered with reference to the price of grain and reduced to a uniform rate of 20 pounds per rupee, the rate for total expenditure will vary from Rs. 76 in the North-Western Provinces to Rs. 129 in Burma. Reduced to the same basis the cost of direct relief, excluding incidental charges, varied from Rs. 65 per 1,000 in the North-Western Provinces to Rs. 111 in Burma, the average rate for all India being a little over Rs. 76 per 1,000.

Variations in the cost of direct relief.

373. Confining attention at present to the cost of direct relief as shown in column 5 it will be seen that in the three provinces —Bengal, North-Western Provinces and Central Provinces,—which adopted the North-Western Provinces wage scale of December 1896, the rates per 1,000 were Rs. 68, Rs. 65 and Rs. 66 respectively, while the lowest rate in other provinces was Rs. 81 in the Punjab. With grain at 20 lbs. to the rupee, these rates would represent an average grain allowance of from 21 to 22 ounces per unit relieved, but for reasons already explained the amount actually received must have been considerably less than this. The rates in the Punjab do not appear to be higher than would result from adherence to the prescriptions of the code for the province, and there is reason to believe that the amount shown as wages in Bombay includes some items of miscellaneous incidental expenditure. The high rate in Madras follows from the system of classification adopted on the relief works, the treatment of children over twelve years of age as adults, and the great expenditure in kitchens. Apart from the cost per 1,000 relieved, the numbers on relief in the Deccan bore a very high proportion to the

population when compared with other areas in which there appears to have been an equal degree of distress, but we are now considering the cost per unit relieved and not the numbers on relief. The rate in Berar was rather high, but as there is some uncertainty as to the actual average grain rate, the rate shown may be somewhat exaggerated. The Burma rate is very high, but as already explained it may be justified by the special provision of section 99 of the Burma code and other conditions peculiar to this province, and, as will be presently shown, when the real value of the work done on the Burma relief works is taken into consideration, the high rate of expenditure may be regarded as fully justified.

Comparison of cost of relief in the late famine with scale recommended by the Commission.

374. In chapter VI of our report we make certain recommendations as to the standard grain wages and allowances to be given in future famines, and it may be interesting to compare the cost of direct relief in the late famine with that which would have resulted if the wages and allowances had been in accordance with these recommendations. Taking first the case of relief works, the table in paragraph 360 shows that the average distribution of workers throughout India was men 33 per cent., women 44 per cent., and children 23 per cent. It may be assumed that at least 10 per cent. of the men would fall into our class II, and that the effect of the proposal that children over twelve should be reckoned as adults would be to reduce the proportion of children from 23 to 14 per cent. The week's wages for a gang of 100 workers, including the Sunday wage, would then be as follow:—

		Ounces.
30 class I at	6×40+24 =	7,920
56 „ II at	6×30+24 =	11,424
14 „ III at	7×16 =	1,568
Total for 7 days		20,912
Total for 1 day		2,987

At 20 lbs. to the rupee, which was the average rate during the recent famine, 2,987 ounces would cost Rs. 9-5-4. Nothing is allowed for special gangs, as the number will always be small, and the extra wage drawn by them will be fully balanced by deductions on account of fines, for which no allowance is otherwise made. Statement B shows that of the recipients of gratuitous relief, including all dependants, 46 per cent. are children, and allowing an average of 12 ounces per child the cost per 100 gratuitously relieved will be—

	Ounces.
54 adults at 24 ounces ... ... =	1,296
46 children at 12 „ ... ... =	552
Total	1,848

The cost of 1,848 ounces at 20 lbs. to the rupee would be Rs. 5-12-5. During the late famine the workers formed 58 per cent. of the total number relieved. In future the proportion will probably be less, as the tendency appears to be towards an expansion of gratuitous relief so as to include many of the weak and feeble that would otherwise go to the works. But assuming, to be on the safe

side, that 60 per cent. of those relieved will be relieved on the higher scale allowed at the works, the cost per 1,000 relieved would be as below :—

Rs. a. p.				*Rs.*	*a.*	*p.*
600 at 9-5-4 per 100	....	...	...	= 56	0	0
400 at 5-12 5 „	...	...	...	= 23	1	8
	Total per 1,000			= 79	1	8

The actual cost during the late famine was Rs. 76 per 1,000 Something should however be added for extra expenditure to be incurred in poor-houses, and allowing for this the normal expenditure on direct relief may safely be estimated at Rs. 80 per 1,000 units relieved, or about 5 per cent. higher than that actually incurred during the late famine.

Deviations within the margin recommended by the Commission.

375. We have also expressed an opinion that a margin of deviation from the standard scale that has been proposed should be allowed to meet variations in the circumstances within affected districts, and have suggested that the limits of this deviation should be 25 per cent. in either direction. The permissible rate per 1,000 units relieved would, therefore, be Rs. 60 as a minimum and Rs. 100 as a maximum. The figures in the fifth column of the table in paragraph 371 indicate that in the late famine the minimum limit was never passed, and that the maximum limit was exceeded only in the provinces of Madras and Burma. If therefore the average wages and allowances shown in the tables really represent the amounts actually paid to the recipients of relief, if the wage basis adopted was in close accordance with the actual market rate, and if the deviations in either direction from a standard scale were justified by all the circumstances, none of the rates shown in the table would be open to objection, with the exception of those for Madras and Burma. We doubt, however, whether these three conditions were fully satisfied in the Central Provinces, or in the most distressed districts of the North-Western Provinces, and we consider that in these cases the cost of relief, if not actually below the minimum limit which we regard as permissible, approached that limit more closely than was fully justified by the circumstances and the severe degree of the distress that existed.

Average expenditure on relief per 1,000 units neither inadequate nor excessive.

376. As regards therefore the general question of the economy of the measures of relief adopted, as gauged by the cost of relief per 1,000 units relieved, we arrive at the conclusion that the cost of the relief operations over the whole of India was no greater than contemplated in the codes, and that the actual expenditure was just 5 per cent. less than the amount which would have resulted from the general adoption of the scale of relief wages and allowances which, after careful consideration, we have elsewhere recommended as a standard for future guidance. As regards particular provinces we find that there have been considerable deviations in both directions from the average and standard rate, but that, with the exceptions which have been already noticed, these deviations were well within the margin which we regard as permissible, and were warranted by local circumstances. We have no hesitation in pronouncing an opinion that the average expenditure on relief per 1,000 units relieved was on the whole neither inadequate nor excessive, and that it very closely corresponds with that

which would have resulted from the general adoption of the standard which we have recommended on independent grounds.

Expenditure on special establishments and miscellaneous charges.

Incidental charges incurred.

377. We have hitherto regarded only the proportions of those relieved to the populations of the affected areas, the proportions of the gratuitously relieved to those employed on works and the actual expenditure incurred directly in the relief of the distressed. An important element in the economy of relief measures is, however, the proportion borne to the actual expenditure on direct relief by the incidental charges incurred in its administration. A reference to the table in paragraph 371 will show that, whereas the cost of direct relief all over India was Rs. 76 per 1,000 units relieved, the incidental charges amounted to Rs. 13 per 1,000, or about 20 per cent. on the relief expenditure, the cost of special establishment only being about Rs. 5 per 1,000 units, or 6½ per cent. on the relief expenditure. The rates varied in different provinces and require further examination in detail.

Special establishments.

378. The pay of the ordinary establishments in all departments of Government which are employed on relief operations is not charged to the head Famine Relief, but only the cost of such extra or special establishments as it may be necessary to entertain in addition to the regular Government staff. The cost of this supplementary establishment will necessarily vary in different provinces and will depend upon the extent to which the existing establishments are adequate for the conduct of the administration of relief. The cost of special establishments per 1,000 units relieved was as follows :—

	Rs.		Rs.
Bengal ...	... 7	Madras ...	... 4
Punjab ...	... 7	Bombay ...	... 3
Burma ...	... 7	Berar ...	... 3
North-Western Provinces	... 4		

The exact rate in the Central Provinces is not known, as only the total of incidental charges of all kinds has been reported, but as these do not exceed Rs. 16 per 1,000, it is probable that the special establishment did not exceed Rs. 5 or Rs. 6 per 1,000. The range of variation is no greater than might be expected. The high rate in Bengal is mainly attributable to the non-existence, owing to the permanent settlement, of a subordinate revenue establishment, such as was available in other provinces. The great number of small works also necessitated the entertainment of much extra establishment. It is not so easy to explain the high rate in Burma and the Punjab, but it is probable that, if operations had been on a larger scale, the rate per 1,000 for establishments would have been considerably reduced, the low rates in other provinces being in a measure due to the fact not that the establishments employed were sufficient but that men of the necessary qualifications were not available. As regards the North-Western Provinces the expenditure on establishments shown in the final report amounts to Rs. 4,39,730 only, but the expenditure on wages is said to include work establishments and contingencies. The local Government has reported that the actual expenditure under these heads cannot be separated, but

that an examination has shown that it may be taken at one-seventh the recorded expenditure on wages. This would amount to Rs. 16,68,185, and for the purpose of the tables under consideration half of this amount has been treated as charges for establishment, and the other half as miscellaneous incidental expenditure. The charges for establishment cannot be regarded as excessive. The success of relief operations depends so much upon the existence of an adequate, intelligent and honest subordinate establishment, that it is on the contrary probable that a greater expenditure on this head would have been advantageous, if more men of the stamp required could have been obtained, and we think that an average rate of Rs. 6 per 1,000 relieved may be contemplated as reasonable.

Other miscellaneous expenditure.

379. The incidence of other miscellaneous charges per 1,000 units relieved was as below:—

	Total Rs.	Tools Rs.		Total Rs.	Tools. Rs.
Bengal ...	10	3	Bombay	3	3
North-Western Provinces ...	7	2	Berar	fractional.	
Punjab ...	12	5	Burma	11	1
Madras	9	4			

The rate for the Central Provinces cannot be given for reasons already stated. As the expenditure was mainly incurred in the purchase of tools, the incidence per 1,000 of the cost of tools is also shown alongside. In Bombay and Berar tools and plant account for the whole of the miscellaneous expenditure, and this justifies the belief already expressed that the considerable expenditure incurred in the former province in hutting the labourers must have been included in the amount shown as wages to workers. After deducting tools and plant the expenditure remaining to be accounted for will be at the following rates per 1,000 relieved:—

		Rs.
Bengal	... ...	7 per 1,000 units.
North-Western Provinces	... ...	5 „ „ „
Punjab	... ...	7 „ „ „
Madras	... ...	5 „ „ „
Burma	... ...	10 „ „ „

The high rate in Burma is due to the fact that the relief works were large public works at a great distance from the homes of the people, and that heavy expenditure had to be incurred in hutting, etc. The other rates do not call for comment, and cannot be regarded as excessive.

Basis for estimating the cost of famine relief in future.

380. It has been shown that the cost of direct relief according to the standard that we have recommended, would on an average grain rate of 20 lbs. to the rupee have amounted to Rs. 80 per 1,000 units relieved, the rate falling and rising directly with the price of grain. If Rs. 6 per 1,000 units be allowed for special establishments, and Rs. 8 for other incidental charges, the total cost at the grain rate assumed would be Rs. 94 per thousand units, which may fairly be taken as a basis in estimating the cost of famine relief in future. The actual cost during the late famine under the same average grain rate has been Rs. 89, or about 5 per cent. less.

Ratio of actual expenditure to value of work done at normal rates.

381. It is difficult to arrive at any exact and reliable conclusion on this important point. In some provinces the matter has received considerable attention, and the normal cost of every individual work at ordinary rates has been recorded in detail. Assuming that the rates have been fairly fixed it is not, however, always clear whether the amounts include merely the ordinary payments that would be made to petty contractors, or also all incidental and contingent charges for which provision would generally be made in the estimates. In the former case the amounts entered would be comparable with the amount paid as wages to workers. In the latter case they are more properly comparable with the total expenditure incurred, including special establishment, tools and plant and other contingencies. In some provinces again, the ratio of actual to normal cost has not been worked out even in this degree of detail, and appears to have been merely loosely estimated. In the following comparison the estimates of the value of work done which have been made in the final reports have been generally accepted, except where reasons for modifying them have been given, and an attempt has been made to show the approximate ratios borne to this value by the wages of the workers, and by all charges incurred in connection with the works concerned. These are shown in the subjoined table, in the second column of which are entered ratios given in the final famine reports or in other returns received by us which have been considered. The differences between these ratios and those which we think should be accepted are explained in the remarks that follow the table :—

Method of making the comparison.

Table showing ratios of actual expenditure on relief works to value of work done at normal rates.

Province.	Ratio shown in final reports.	Accepted Ratio.	
		Wages only.	Total expenditure.
1	2	3	4
Bengal	1·3	1·5	2·1
North-Western Provinces	1·7	2·0	2·8
Punjab	1·8	1·4	1·8
Central Provinces	2·5	1·8	2·5
Madras	3·3	2·9	3·4
Bombay	2·7	2·6	3·1
Berar	1·3	...	1·3
Burma	1·3	1·0	1·3

382. The ratio given in the second column is that estimated by the Commissioner of Patna for works carried out by task-work under civil agency, the expenditure on which was nearly two-thirds of the total expenditure on relief works in the province. On works outside Behar and those under Public Works agency in the Patna division, the majority of which were on piece-work, it is claimed that the

Bengal.

actual cost did not on the whole exceed, and was in some cases less than, the value at normal rates. The rates, however, appear to have been arrived at on a consideration of the wages paid to diggers and carriers only, without reference to the amounts paid to daily labourers employed irrespective of task, which included also the Sunday wage. There is no doubt that full tasks were exacted in Bengal, and that the wages were very low; and the average ratio for the whole province, exclusive of relief of dependants and other items may, when allowances are made for the untasked labour and Sunday wage, perhaps fairly be put at 1·5. In the total expenditure Rs. 5,00,000 has been taken for miscellaneous charges. The accounts show Rs. 8,86,825, but the distribution of this amount between works and other forms of relief has not been given.

North-Western Provinces.

383. In these provinces the value of work done appears to have been estimated at considerably more than the normal rates, on the ground that the same quantity of work could not have been carried out throughout the hot weather at anything like the usual Public Works rate of Rs. 2-8 per thousand for earth-work, and it is said that the value of work done throughout the provinces has been estimated by the Chief Engineer with regard to this consideration. The contention may be reasonable, but a large proportion of the work was actually executed in the cold weather, and in practice it would never be necessary to carry out works of the kind at such high pressure or within so limited a time. The argument is, moreover, applicable to all other provinces, and although it may be used as a partial explanation of a high ratio, it is not fair, for purposes of comparison, to reduce the ratio on this account. It is impossible to say to what extent normal rates have been enhanced with reference to these considerations, but if it be assumed at no more than 25 per cent. the correct ratio would be apparently about 2·2. Contingencies and special establishments have been included in the wage account; but on the other hand, the Sunday wage, in the greater part if not the whole of the province, has been treated as gratuitous relief. Making allowances on these accounts the ratio struck on wages only may be set at 2·0.

Punjab and Central Provinces.

384. The ratios quoted include all charges. The reports for both provinces give the ratios also for wages only, which have been shown in detail for each work, the final or average ratios being as shown in column 2 of the table. The final ratio of 1·8 in the Punjab is based on the whole of the operations; for irrigation works it is 2·5, for roads 2·0, and for tanks in the villages, where lower rates were paid and nothing was allowed for dependants, it was very little over 1.

Madras.

385. No details have been given, but the Madras Famine Commissioner has given evidence to the effect that the district ratios varied from 3·6 in Ganjam and Cuddapah to 1·7 in Godavari, the average rate for the province being 3·3. This ratio included cost of work establishments and contingencies, but not the relief of dependants. After making allowances for establishment and contingencies the ratio for wages only may be estimated at 2·9.

Bombay.

386. The rate in the second column includes wages of workers and the cash doles paid to dependants. The latter item has been eliminated in striking the accepted rate. There is reason to think, however, that the amount returned in Bombay as workers' wages included other items or miscellaneous expenditure.

Burma.

387. The rates given are those for the Meiktila-Myingyan Railway, the expenditure on which was about 95 per cent. of the total expenditure on relief works.

Comparison of these ratios.

388. In comparing these ratios it will be most convenient to consider those in the third column, on the assumption that the estimated value of work done is the amount that would be paid for labour only. The ratios should properly be increased by perhaps 10 per cent. to allow for the work establishments employed, tools used, and other charges which are usually included in petty contractors' rates. The ratios given in the last column include all charges for establishment, tools and plant and contingencies, but these charges vary so much according to circumstances that a fair comparison cannot be made, while there are many doubtful factors in the ratios themselves. Those in the third column are more reliable, and will be approximately correct and fairly comparable, if it may be assumed that the reported values of work done at normal rates have been fairly calculated on a generally uniform basis. The ratio varies from 1·0 in Burma to 2·9 in Madras. It may be remarked that the reported value of the work done is far more reliable in Burma than elsewhere, as the work was actually valued after completion by an independent Railway Officer. The results attained in this province under which the actual expenditure on relief works exceeded the value of the work done by less than 28 per cent. must be regarded as very creditable, but as has been elsewhere pointed out the work was carried out under more favourable conditions than ordinarily obtain on relief works; the numbers employed were small and a strong professional supervising staff was available, while the ordinary labour wage in Burma appears to bear a higher ratio to the famine wage than in other parts of India. The ratios for other provinces follow generally the order that might have been anticipated from what is known of the general condition and physique of the relief labourers, of the character of the works undertaken, of the proportions of men to women and children, of the strictness exercised in the enforcement of tasks, of the adequacy and competency of the available establishments, and of the ratio of current grain prices to the normal rate. When allowance is made for the high and low scale of wages that obtained in Madras and Bengal respectively, the general conclusion would seem to be that the cost of wages may be expected to vary from one and-a-half to two and three-quarter times the value of the work done when calculated at normal rates, according to circumstances.

Considerations to be kept in view in making this comparison.

389. It will, of course, be understood that the value of work done when calculated at normal rates does not represent the actual permanent gain to the community resulting from the expenditure on relief works, which may properly be deducted from the gross expenditure for the purpose of exhibiting the net cost to the State of famine relief. That is a separate question which will be next discussed. The ratios which we have been considering are of interest only as an indication of the probable cost of works carried out by relief labour, and as a measure of the efficiency of the discipline and labour test, which, when all other circumstances are the same, is a principal factor in the economical administration of famine relief. In practice, however, a general similarity of circumstances can be assumed to exist only within adjacent districts of the same province, and in comparing provincial ratios it must be remembered that good discipline is only one of the causes that make

for a low ratio. For instance unprofessional diggers will for some time at least work more effectively as compared with professional labourers in the soft soil of Bengal than in the hard *murrum* found in some other provinces. Much will also depend on the ratio of the famine wage actually adopted to that paid in ordinary times to ordinary labourers, on the minimum age at which children are admitted as workers, on the percentage of male adults, on the position in which the line has in practice been drawn which separates the workers from the recipients of gratuitous relief, and on the intensity of the distress and the degree to which the condition of the people has run down.

The extent to which the works executed by relief labour are of permanent utility.

390. The last question which we have to consider in regard to the economy of relief operations is that of the real value or utility to the community of the works that have been carried out by relief labour. If this value could be correctly appraised the total cost of relief operations might fairly be reduced by the amount, the balance representing the net or ultimate cost to the State. It is, however, difficult to fix the value quantitatively, or to give more than a very general idea of the permanent gain to the community, apart from the relief of distress, which has resulted from the expenditure incurred. For this purpose it will be convenient to divide relief works into three classes, as follow :—

Classification of relief works.

A.—Public works, such that the whole or nearly the whole of the value of the work done, as calculated at normal rates, may fairly be deducted from the cost of relief operations.

B.—Public works, such that only a small portion, if any, of the value of the work done, may fairly be so deducted.

C.—Village works.

Class A will include :—

(i) Works which are likely to prove remunerative, either directly or indirectly, by the protection that they will afford against famine in future, and for the early completion of which funds can be made available.

(ii) Works for the early completion of which funds can be made available and which, though not likely to be remunerative, are likely to be of great public benefit, and would if not constructed during famine have been in the ordinary course of administration carried out sooner or later.

(iii) Works, such as the collection of road metal, which will lead to a reduction in future years of charges, such as the maintenance of metalled roads, to which the Administration is committed.

Class B will include :—

(i) Works which, though of considerable public benefit, are likely to be useless or to fall into desuetude for want of the funds necessary for their completion, utilization, or subsequent maintenance.

(ii) Works which are of little or no public benefit at all, and which have merely been constructed as a means of employment for relief labourers.

If works of class A were completed during the famine, or if they are carried on to completion without serious interruption after the relief works are closed, the whole of the actual value of the work done on them may be regarded as a fair set-off against the cost of famine relief. If delay occurs the whole amount cannot be so charged off, partly because the State virtually loses interest on the money sunk, and partly because the works will deteriorate. If the delay is great the works will fall into class B, and if very prolonged no share whatever of their actual cost can fairly be deducted from the cost of famine relief. As regards works of class C, ordinarily a very small portion of the expenditure incurred on them can fairly be regarded as a reduction of the cost of famine relief. For the most part they are not in themselves works on which public revenues would ordinarily be spent, as at the best they represent local improvements or conveniences in the narrowest sense of the term. Few of them are calculated to lessen the effects of future droughts. Many of them, however, are of distinct local utility, especially tanks for drinking purposes and for watering cattle, and they are naturally much appreciated by the village communities which have thus been benefited. But beyond this the State derives no advantage from their construction.

Attempt to estimate the real value of the works executed in each province.

391. The provincial reports do not give the information that would render it possible to distribute the expenditure incurred on relief works between these classes, but some general idea may be formed of the real value of the works executed in each province.

Bengal.

392. In Bengal the following expenditure was incurred on railway and irrigation works :—

		Rs.
Sakri-Jainagar Railway		64,936
Bettia-Bagaha Railway		11,265
Bhagmati Canal		5,817
Bayanala Cut		7,539
Tribeni Canal		1,47,428
Dhaka Canal	(about)	13,015
TOTAL ...		2,50,000

The Chief Engineer states that the value of the work done closely approximated to the actual cost, and that the value of the two first works will be eventually recovered from the Tirhut State Railway, and will be practically equal to the amount expended. The other works form parts of projects which it is proposed to recommend on their merits as famine protective works and which will, it is said, be works of permanent utility. If the railways are taken over and the other projects are sanctioned and completed without great delay, much of the expenditure shown above may be considered as permanently useful, but for the present it may be assumed that the proportion will not exceed 75 per cent., or, say, Rs. 1,90,000. The expenditure on wages to relief workers in Bengal amounted to about Rs. 54,12,000, and if Rs. 2,50,000 be deducted on account of the above works, the balance will represent the expenditure on other works. The report shows that these other works consisted mainly of roads and tanks in equal proportions, and if the average numbers on road and tank charges were also

equal, the outlay on roads may be put down at about Rs. 25,80,000, and according to the Bengal ratio the actual value of the work done will have been two-thirds of this, or say, Rs. 17,20,000. The proportion of this value that may be regarded as effective will vary from 100 per cent. to *nil*, according to the class and sub-class under which the works fall, but in view of the admitted difficulty in all provinces of finding funds for the completion and maintenance of new roads it will perhaps suffice for purposes of comparison to take two-thirds of the actual value of the road work executed in all provinces for relief purposes as effective value. The effective value of the road work executed in Bengal may thus be put at Rs. 11,50,000. The expenditure on tanks will be separately considered.

North-Western Provinces.

393. In the North-Western Provinces the works carried out, with the exception of some canal works, were mostly roads, tanks and wells, with a few miscellaneous works. The expenditure on these is not stated separately, but in the report of the Superintending Engineer, Additional 3rd Circle, the following figures are given for his circle :—

		Rs.
Cost of famine labour on road work...	... ...	31,52,628
" " " tank work...	... ...	39,15,202
" " " stone work and murrum	...	2,17,928
TOTAL	...	72,85,758

The total expenditure on wages in the Public Works Department may be taken at Rs. 1,00,00,000, but the reports indicate that the proportion of tank work was very much smaller in other circles. In the 2nd circle the wages on tank works do not appear to have exceeded Rs. 2,57,000. The total expended on tank works under the Department of Public Works in the province probably did not exceed Rs. 43,00,000, leaving Rs. 57,00,000 for roads and other works. Taking the value of these works at 50 per cent. of the expenditure on wages, or Rs. 28,50,000, and assuming as before that two-thirds of this is effective, we have Rs. 19,20,000, as the effective value of the works. No account has been taken of the tank works or of the works under civil officers, as these were mostly village works; nor of the canal works, in regard to which no information has been given, though the expenditure is believed to have been small.

Punjab.

394. In the Punjab Rs. 11,08,306 was spent on irrigation works, the value of the work done and charged off to the projects concerned being Rs. 4,41,029. These works all fall within class A (1). With the exception of the Jhelum Canal work all were completed during or soon after the famine, and the Jhelum Canal is in progress. The expenditure on tanks and miscellaneous works amounted to Rs. 6,10,000, none of which can be considered effective. On roads and *kunkar* excavation Rs. 2,35,500 was spent, the value of the work done at normal rates being estimated at 50 per cent. or about Rs. 1,18,000, two-thirds of which, Rs. 79,000, will fully represent the effective value of the work done.

395. In the Central Provinces the relief works under the Public Works Department consisted almost entirely of roads. The work done is reported by the Chief Engineer as below:—

Central Provinces.

—	Unmetalled.	Metalled or murrumed.	Total.
1	2	3	4
	Miles.	Miles.	Miles.
New roads	150	429	579
Roads raised in class	127	692	819
TOTAL ...	277	1,121	1,398

Out of 178 charges no less than 172 were road works, and five were tanks or impounding reservoirs on which the expenditure amounted to Rs. 50,000 only. Only one or two of these were completed, and all will require masonry regulators before they can be utilized for irrigation. Many of the roads are of great utility, and much of the work done will reduce the cost of maintenance of existing roads for the next few years. The permanent value of the new roads depends however on the construction of the necessary masonry works, and on the adequacy of the funds that may be made available for their up-keep and maintenance, while some at least of the roads were not really required. The effective value may therefore be taken here, as elsewhere, at two-thirds of the actual value of work done. The total expenditure on relief works under the Public Works Department was Rs. 1,02,88,297, and as the actual value of the work done has been estimated at 40 per cent. of this expenditure the effective value may be taken at two-thirds of 40 per cent. or say Rs. 27,40,000.

396. In Madras the total expenditure incurred in the Public Works Department and on works under civil officers amounted to Rs. 71,32,091 including all charges except relief of dependants. From the figures given in appendix VIII of the Madras report it appears that about 8 per cent. of the total expenditure was incurred in the maintenance or construction of irrigation works, and a little over 1 per cent. on miscellaneous works. The balance or over 90 per cent. of the entire expenditure was incurred on roads, regarding which the Famine Commissioner reports that in the large majority of cases they were taken in hand merely from the necessity of finding work of any kind for the numbers demanding employment, and that many of the roads constructed by famine labour are not kept up afterwards from want of funds. The actual value of the work done may be taken at one-third the recorded expenditure, or in round numbers at Rs. 24,00,000, of which Rs. 2,00,000 was on account of irrigation works, and may be regarded as effective value, though it is at least doubtful whether all the irrigation works are worth their value at normal rates. Of the balance, or Rs. 22,00,000 spent on road work, two-thirds may, as elsewhere, be treated as of permanent value, and the total effective value of the works in the presidency will then stand at Rs. 16,70,000.

Madras.

Bombay.

397. In the final report on the famine in the Bombay presidency the famine expenditure on different classes of works is compared with the useful expenditure, as below:—

	Famine expenditure.	Useful expenditure.
	Rs.	Rs.
1. Improvements to roads	58,86,670	19,70,000
2. New roads	12,59,484	4,91,192
3. Railway works	8,39,760	4,75,175
4. New irrigation works	13,17,186	4,41,279
5. Improving old works	1,47,559	78,709
6. Water-supply	1,26,336	49,644
TOTAL ...	95,76,995	35,05,999

Regarding item 1 it is said that "it is probable that when masonry works are completed and the masonry material spread and consolidated, the improvement to many roads will be such as to warrant the establishment of tolls which will at least bring in enough to maintain roads which before the famine were a constant drain on the yearly expenditure for maintenance," and again that "many roads have been so much improved as to warrant the establishment of new tolls which should maintain the roads, and the reserved stock of metal collected should reduce the maintenance charges during the next ten years." In the case of such roads the whole or nearly the whole of the useful expenditure, *i.e.*, the value of the work done at normal rates, may be regarded as effective value, but on the other hand it is certain that on some roads metal has been collected that will never be laid or subsequently maintained, and for present purposes we may assume that, as in other provinces, only two-thirds of the value of the work done on roads will be really effective, whether under item 1 or 2. In regard to railway works it is stated that "it is questionable if the earth-work done on the Pundharpur-Sangola extension, the value of which at normal rates is Rs. 1,80,000, should be counted as useful work, as it is doubtful if this extension will ever be made, or in any case till much of the work done has deteriorated." The balance of the expenditure on this item may be regarded as effective. As regards the apparent excessive cost of new irrigation works it is explained that "the embankment and filling in of the puddle trench are the works most suited to famine labour, but before these can be commenced the puddle trench has to be excavated, a slow and troublesome work, the difficulties of which are aggravated by having large numbers of unskilled labour to deal with. In addition to this there is the expensive item of pumping out water from the deeper portions of the trench to be considered. There is no doubt but that so much of this work having been done during the present famine has much improved the position with regard to providing useful famine work in the future, as even if the puddle trenches fill in with soil and silt, as is most probable, the excavation of this soft material will be a matter of small amount, now that the hard rock and *murrum* has been cut out." It is added that "the most difficult and expensive work connected with several irrigation projects has been carried out, and the position with regard to providing suitable famine work in the future has been much improved." It is understood from these remarks that the new irrigation works have not been completed, and have been little more than well begun. The effective value of the work done depends upon whether the works will

not be proceeded with until the recurrence of famine, as appears to be contemplated, or whether they can be taken up as Famine Protective works, as may be the case with some of them. On the whole it is thought that not more than a quarter of the actual value of the work done should, under the circumstances, be regarded as effective. As regards items 5 and 6 the whole of the useful expenditure shown may be accepted. The effective value of the work done in Bombay will then be as follows :—

	Rs.
Road work	16,40,795
Railways	3,95,175
New Irrigation works	1,10,320
Improving old do.	78,709
Water-supply	49,664
Total ...	22,74,663

Berar.

398. In Berar the actual cost of work done by famine labour is compared with its estimated value at ordinary rates as below :—

	Actual cost. Rs.	Value at normal rates. Rs.
(1) Construction and improvements to unmetalled roads	2,39,370	1,70,074
(2) Collection of metal	71,010	49,096
(3) Earth-work	88,122	66,889
(4) Construction or improvements to tanks and wells	81,535	76,063
(5) Miscellaneous	2,681	2,681
Total ...	4,82,718	3,64,803

The Commissioner states that nearly all the works are of permanent utility except some of the tank excavations and dams, which in his opinion are of doubtful value. Most of such works probably belong to class C, and may for the present be disregarded on that account, and the effective value of the work done may be taken as Rs. 2,50,000.

Burma.

399. In Burma the total expenditure under the Public Works Department amounted to Rs. 11,23,441, of which Rs. 10,52,900 was for work done on the Meiktila-Myingyan Railway, the effective value of which may be taken at Rs. 8,25,545. In addition useful expenditure was incurred on tank and road work which is valued at Rs. 2,690, and the effective value of all relief works in Burma may be put at Rs. 8,28,235.

Local or village works.

400. In this estimate of the real or "effective" value of works of permanent public utility executed in the late famine we have, as already stated, excluded purely local or village works. We have however stated that such works are often of much utility in the particular localities where they have been undertaken. If a definite valuation has to be made of them, this may best be made on the basis of the quantity of work done valued at normal rates. The amount for each province, following the assumptions which have already been made, are shown in the table in the next following paragraph. In the case of Madras no such works have been entered, as there are no means of separately distinguishing them. It is

probable that many of the irrigation and miscellaneous works, the expenditure on which has already been considered, might more properly be relegated to this class. In saying that works of purely local or village utility are not in ordinary times legitimate objects for the expenditure of public funds, we do not imply that they are not in particular circumstances legitimate famine relief works. If on the one hand they are difficult to manage and are liable to be dangerously attractive, they fulfil in other respects at certain seasons and in certain localities the requirements of relief in a more satisfactory manner than large works. Apart from their value as relief works many of these will be of considerable permanent utility to the small communities for whose benefit they have been constructed, and although their value cannot properly be considered as effective in the sense of anticipating expenditure that would otherwise be incurred sooner or later by the State on public works, or in materially diminishing the liability to famine in future, it nevertheless represents substantial benefits conferred by the State on the agricultural community of which separate account may legitimately be taken.

Comparative table of effective value of work done.

401. The assumed effective value of the work done for each province and the useful expenditure on village works are compared below with the amounts paid as wages to workers given in statement C at page 238.

Province.	Wages to workers.	Effective value of work done.	Percentage	Village Works.	
				Expenditure.	Percentage.
1	2	3	4	5	6
	Rs.	Rs.		Rs.	
Bengal ...	54,12,420	13,40,000	24·8	17,20,000	31·8
North-Western Provinces.	1,03,19,450	19,20,000	18·6	21,50,000	20·8
Punjab ...	15,13,481	5,20,000	34·4	5,80,000	38·3
Central Provinces ...	83,17,055	27,40,000	32·9	6,02,000	7·2
Madras ...	60,55,444	16,70,000	27·6	...	...
Bombay ...	95,15,075	22,75,000	24·2	1,56,000	1·6
Berar	4,72,718	2,50,000	52·9	76,000	16·1
Burma	9,62,328	8,28,000	86·0	6,000	·6
Total ...	4,25,67,971	1,15,43,000	27·2	52,90,000	12·5

The wages include those paid on works under civil officers, all of which except in Bengal may be regarded as falling under class C.

The general conclusion is that the real value to the State and to village communities of the works executed during the late famine may be regarded as approximately 40 per cent. of the expenditure actually incurred on wages, the value of the public works being approximately Rs. 1,15,43,000 which may be regarded as a set-off to the State expenditure on relief.

Sixty per cent. of the expenditure non-effective.

402. For 60 per cent. of the expenditure there is nothing more to show ultimately than for that incurred on gratuitous relief. This is the price paid for relieving masses of people under famine conditions, in a year when food is excessively dear and at a season

of the year when the climate is against efficient labour. It might be argued from these figures that it would be simpler and cheaper to place a large proportion of the relief workers on gratuitous relief in their homes, and to employ only the able-bodied and efficient workers. To some extent the policy of restricting relief workers to the comparatively able-bodied was pursued in Bengal, and in other provinces where piece-work or payment by results was resorted to. We have elsewhere discussed the conditions and limits to which the adoption of any system of payment by results in future scarcities or famines should in our opinion be subjected. In the event of severe famine we do not contemplate that any material improvement in the economic returns of relief labour is likely to be reached. It is impossible to so extend gratuitous relief in the homes of the people as to restrict the exaction of the labour test to the able-bodied only. Unsatisfactory as relief works open to all classes are from an economic point of view, it would be far more unsatisfactory from another and a still more important point of view to accustom the people to a gigantic system of gratuitous relief on the occurrence of every severe famine. It is possible that in some provinces the labour test may have been applied to the infirm and young who might well have been sent to their homes and placed on the gratuitous lists. But to this is the objection that families would thereby be broken up, especially when the homes of the labourers are distant from the works. The conclusion which has been stated indicates that if the administration of gratuitous relief could be safely relaxed so as to include among its recipients a number of the less capable individuals who are ordinarily required to attend relief works as a condition of relief, the result would be a great saving in the cost of relief, which would also be further reduced by the more effective discipline which would be rendered possible on the works.

Variations in the provincial percentages.

403. The provincial percentages given in the foregoing table vary greatly. It would be unfair to regard them in any sense as figures of merit, and so far as the figures and arguments on which they are based can be relied on, they indicate only the extent to which circumstances have rendered it possible to employ relief labourers on works of real utility. It is possible that in all provinces, except the Punjab, Burma and Berar, somewhat higher percentages of effective value for public works might have been attained, if programmes of relief works had been maintained more systematically and up to date before the outbreak of the famine, and they are naturally lower in those provinces in which the total expenditure on works bears a high proportion to its actual value at normal rates, a question which has been separately considered. The choice of works for the employment of relief labourers is however so inevitably governed by circumstances and by other considerations than that of their intrinsic usefulness, that the percentages given must be regarded as roughly expressing the facts as to the economic value of the works which have been carried out, rather than as measures of the effectiveness of the administration. They are, of course, open to question, and it may well be doubted if an independent analysis of the figures available would lead to exactly the same results, but the data upon which they are based have been stated in sufficient detail, and the general conclusions derived from them, though not absolutely reliable, will nevertheless be of some interest to those who are concerned with the economical side of famine administration.

General conclusion as to the success of the operations.

404. We have now considered the degree of success which has attended the relief measures undertaken in each province, primarily with reference to the relief of distress and the saving of human life, and secondarily with regard to economy. The former is no doubt the more important question, and it has engaged our very careful attention, but it is impossible to consider it wholly without reference to the latter, or to dissociate the question of efficiency from that of cost. We have, however, discussed them separately, and after expressing our opinion as to the degree of success attained in each province in the relief of distress and the saving of human life, without immediate regard to the expenditure incurred, have endeavoured to bring into fair comparison the cost of relief in each, with due consideration to all variations in circumstances, and with reference also to what may be regarded as average or normal standards. Viewed as a whole we consider that while the areas over which intense and severe distress prevailed in the famine of 1896-97 were greater than in any previous famines, the success actually attained in the relief of distress and saving of human life was, if not complete, far greater than any that has yet been recorded in famines that are at all comparable with it in point of extent, severity or duration, and that this result has been achieved at a cost which, when compared with the expenditure in previous famines, and with other standards that we have had before us, cannot but be regarded as very moderate.

सत्यमेव जयते

STATEMENT A.

Province.	Affected area and population.			Duration of relief operations.	Millions of units relieved.	Average daily number of persons relieved.	Percentage of average daily number relieved to population.	Direct State expenditure on relief including establishment and incidental charges.	Average cost of relief per thousand units relieved.	Loans and Advances.		Suspensions and Remissions.		Indian Charitable Relief Fund.	
										Total amount.	Amount per 1,000 of population of affected area.	Total amount.	Amount per 1,000 of population of affected area.	Total amount.	Amount per 1,000 of population of affected area.
1	2			3	4	5	6	7	8	9	10	11	12	13	14
		Sq. miles.	Population (in thousands).	Days.			P. C.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	1 Patna Division	10,686	7,628	270	110	407,500	5·3	87,89,649	80						
	2 Rest	14,513	3,735	240	22	92,000	2·4	20,14,108	92	(a)22,49,115	198	Nil.	Nil.	20,65,636	182
		25,199	11,363		132	499,500	4·4	1,08,03,757	82						
North-Western Provinces and Oudh.	1 Four Bundelkhand districts ...	10,418	2,297	300	102	340,000	14·8	70,02,451·91							
	2 Other "Famine" districts ...	29,804	15,830	300	161	539,000	3·4	1,10,52,889·79		42,13,831	151	2,09,83,975	750	48,87,527	175
	3 Scarcity districts	17,595	9,854	270	19	70,500	0·7	13,04,378·30							
		57,813	27,981		282	949,500	3·4	(b) 1,98,47,829	70						
Punjab	1 Hissar	3,763	544	240	12·2	51,000	9·3	12,26,610	101	4,79,097	881	3,89,074	715	11,73,822	372
	2 Rest	7,676	2,613	210	10·2	49,000	1·8	10,07,394	99	8,97,542	343	18,04,553	691		
		11,439	3,157		22·4	100,000	3·2	22,34,004	100	13,76,639					
Central Provinces ...	1 In Jabalpur Division ...	15,682	1,830	330	62	188,000	10·3	40,56,931	65	8,76,764	479				
	2 Rest	36,233	4,632	330	96	291,000	6·3	1,15,53,808	120	22,35,910	482	52,09,234	806	33,65,163	521
		52,915	6,462		158	479,000	7·4	1,56,10,739	99	(c) 31,12,674					
Madras	1 Deccan	14,743	2,005	300	78	260,000	12·9	81,51,162	105	15,99,093	798	29,45,000	1,468	14,25,412	282
	2 Rest	8,608	3,043	180	16	89,000	2·9	16,76,475	105	2,56,244	84	4,25,000	140		
		23,351	5,048		94	349,000	6·9	98,27,637(d)	105	18,55,337					
Bombay	1 Bijapur and Sholapur ...	10,169	1,546	330	62	188,000	12·1	64,99,299	105	19,30,908	1,249	168,755	109	14,84,950	216
	2 Rest	32,743	5,319	330	57	170,000	3·2	61,37,503	108	33,66,074	633	847,706	159		
		42,912	6,865		119	358,000	5·2	1,26,36,802	106	52,96,982					
Berar	.....	7,217	1,183	240	5·25	20,000	1·7	5,74,875	109	1,25,036	106	90,736	77	1,92,795	163
Burma	.....	3,982	381	365	8·8	23,000	6·0	11,85,594	141	1,81,905	477	...	...	3,09,266	812
	Total ...	224,828	62,440		821	2,778,000	4·4	7,27,21,237	89	1,84,11,519	295	3,28,64,033	526	1,49,04,571	239

1. The area and population figures are based on the monthly relief returns of the several provinces. As the area and population returned varied from month to month, a fair mean average for the whole period has been taken.
2. In estimating the duration of relief operations the period only during which relief on a considerable scale was given, has been taken.
3. In each province the area most severely affected has been separated from the area less severely affected.

(a) Includes Rs. 3,53,179 on account of famine loans.
(b) Includes Rs. 4,88,109 on account of non-recoverable advances.
(c) Includes Rs. 11,53,360 on account of famine loans, much of which will be remitted.
(d) Includes Rs. 11,49,095 on relief of weavers, half of which will be recoverable.

STATEMENT B.

...ement showing for each Province the cost of various forms of Gratuitous Relief, per unit relieved.

Province.	Form of relief.	Total expenditure.	Number of units relieved.	Percentage on number relieved on works.	Proportions.			Cost.		Average grain rate per rupee.	Cost per adult unit on a wage basis of 20 lbs. per rupee.	Corresponding grain wage in ounces.	Remarks.
					Men.	Women.	Children.	Per unit.	Per adult unit.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.	Thousands.	P. C.	P. C.	P. C.	P. C.	Annas.	Annas.	lbs.	Annas.	Ounces.	
ENGAL	Dependants	1,01,029	4,036	7	2½	7½	90	0·40	0·73	21	0·77	15	
	Home relief	28,23,298	61,099	...	18	54	28	0·74	0·81	...	0·85	17	
	Poor-houses	43,346	640	...	31	34	35	1·08	1·31	...	1·38	28	
	Kitchens	2,16,557	5,007	...	8	13	79	0·69	1·14	...	1·20	24	
	Total ...	31,84,230	70,782	...	...	...	30	0·72	0·85	...	0·89	18	
NORTH-WESTERN PROVINCES ...	Dependants	8,27,038	34,703	24	3	4	93	0 38	0·71	22	0·78	16	
	Home relief, etc.	35,21,960	76,601	...	22	54	24	0·74	0·83	...	0·92	18	
	Poor-houses and kitchens	10,48,922	12,273	...	28	30	42	1·36	1·73	...	1·90	39	
	Total ...	53,97,920	123,577	...	...	...	45	0·70	0·90	...	0·99	20	
PUNJAB	Dependants	1,39,381	4,035	25	3	4	93	0·55	1·03	20	1·03	21	
	Home relief	1,28,929	2,170	...	29	43	28	0·95	1·10	...	1·10	22	
	Poor-houses	19,291	285	...	...	...	...	1·08	...	...	...	...	
	Other forms of relief	5,351	76	...	...	...	...	1·12	...	...	...	...	
	Total ...	2,92,952	6,566	...	...	...	68	0·71	1·08	20	1·08	22	

CENTRAL PROVINCES ...	Dependants	7,95,247	14,941	20	5	7	88	0·85	1·52	16	1·22	24	
	Home relief	25,72,793	40,270	...	20	44	36	1·02	1·25	...	1·00	20	
	Poor-houses	8,65,906	7,500	...	26	29	45	1·85	2·37	...	1·90	38	
	Relief centres and kitchens	3,84,457	9,547	...	18	23	59	0·64	0·91	...	0·73	15	
	Weavers and others	1,26,412	1,425	...	...	...	...	1·42	1·42	...	1·14	23	
	Total ...	47,44,815	73,683	...	...	...	50	1·03	1·37	...	1·10	22	
MADRAS	Home relief	9,31,717	13,578	...	19	41	40	1·10	1·37	24	1·65	33	} These numbers include about 4,357,000 dependants.
	Kitchens	4,63,750	6,390	...	8	16	76	1·16	1·87	...	2·25	45	
	Weavers	11,49,095(*a*)	6,100	...	50	45	5	1·55	1·54	...	1·85	37	(*a*) Rates struck on half the expenditure, as it is anticipated that half will be recovered.
	Total ...	25,44,562	26,068	...	...	...	...	1·21	1·52	...	1·82	37	
BOMBAY	Dependants	9,28,353	22,234	28	½	6	93½	0·65	1·23	17	1·04	21	
	Home relief	13,77,001	13,357	...	47	30	23	1·65	1·86	...	1·58	32	Includes allowances to village servants.
	Poor-houses	49,205	376	...	23	34	43	2·09	2·66	...	2·26	45	
	Total ...	23,54,559	35,967	...	...	...	67	1·05	1·57	...	1·33	27	
BERAR	Dependants	23,984	558	16	·1	·4	99½	0·69	1·37	17	1·16	23	
	Home relief	41,624	625	...	...	...	...	1·07	...	...	...	...	
	Poor-houses	43,551	583	...	...	...	...	1·20	...	...	...	...	
	Total ...	1,09,159	1,766	...	...	...	52	0·99	1·33	...	1·13	23	
BURMA	Dependants	32,777	1,406	14	...	...	...	0·37	...	18	...	...	
	Home relief, etc.	41,704	468	...	...	...	...	1·43	...	...	...	...	
	Total ...	74,481	1,874	...	...	...	68	0·64	0·97	...	0·87	17	
GRAND TOTAL ...	All kinds	1,87,02,678	340,283	...	...	...	46	0·88	1·14	20	1·14	23	

STATEMENT C.

Statement showing proportions of direct expenditure on relief and incidental charges for each Province.

Province.	Units relieved.			Expended in direct relief.			Cost per 1,000 units relieved.	Average wage basis in lbs. per rupee.	Cost per 1,000 units on a 20 lbs. wage basis.	Incidental charges.				Establishment rate.		Total incidental charge rate.	
	Relief works.	Gratuitous relief and weavers, etc.	Total.	Relief works.	Gratuitous relief and weavers, etc.	Total.				Establishment.	Tools and plant.	Other items.	Total.	On total direct relief.	Per 1,000 units relieved.	On total direct relief.	Per 1,000 units relieved.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Thousands	Thousands	Thousands	Rs.	Rs.	Rs.	Rs.	lbs.	Rs.	Rs	Rs.	Rs.	Rs.	P. C.	Rs.	P C.	Rs.
Bengal	61,296	71,068	132,364	54,12,420	32,00,287	86,12,707	65	21	68	8,85,446	4,09,785	8,95,820	21,91,050	10	7	25	17
North-Western Provinces	158,904	123,577	282,481	1,03,19,450	63,95,967	1,67,15,417	59	22	65	11,65,752	6,04,230	13,62,430	31,32,412	7	4	19	11
Punjab	15,889	6,566	22,455	15,13 481	2,98,424	18,11,905	81	20	81	1,51.051	1,09,812	1,61,236	4,22,099	8	7	23	19
Central Provinces ...	84.317	73,683	158,000	83,17,055	47,43,544	1,30,60,599	83	16	66	...	...	...	25,50,140	...	...	20	16
Madras	66,350	27,370	93,720	60,55,444	25,44,562	(a) 86,00,006	86	24	103	4,16,712	3,62,396	4,48,523	12,27,631	5	4	14	13
Bombay	82,710	35,967	118,677	95,15,075	23,54,559	1,18,69,634	100	17	85	3,77,606	3,88,775	787	7,67,168	3	3	7½	6
Berar	3,486	1,766	5,252	4,72,718	85,175	5,57,893	106	17	90	13,258	3,724	...	16,982	2	3	3	3
Burma	6,562	1,874	8,436	9,62,328	74 481	10,36,809	123	18	111	57,957	11,161	79,667	1,48,785	6	7	14	18
TOTAL ...	479.514	341,871	821,385	4,25,67,971	1,96,96.999	6 22,64,970	76	20	76	...	...	...	1,04,56,267	...	...	17	13

(a) Includes Rs. 5,74,547 on account of weavers which is recoverable, and has been deducted befor striking the rates in columns 8 and 10.

CHAPTER VI.

RECOMMENDATIONS AS TO MEASURES AND METHODS OF WORKING.

405. The suggestions to be made in this chapter fall under six distinct sections :—

Introductory remarks.

(*a*) Relief works ;

(*b*) Gratuitous relief;

(*c*) Aboriginal hill and jungle tribes ;

(*d*) Special relief to weavers;

(*e*) The utilisation of charitable funds;

(*f*) The order and method of use and combination of all these methods of relief.

The section relating to relief works may also be conveniently sub-divided into six heads :—

(i) Programmes of works;

(ii) Test works ;

(iii) Class of relief works to be opened;

(iv) Organization and direction of relief works;

(v) Classification and wage scale of daily labourers;

(vi) The code system of task-work and systems of payment by results, tasking, rest-day allowance, relief works accounts, etc.

SECTION I.

Relief Works.

(*i*) *Programmes of works.*

406. The first subject to be considered in connection with relief works is that of the programmes to be maintained in anticipation of famine, and the character of the works to be included in them. Lord Lytton's minute of the 12th August 1877, written at the height of the famine campaign of Southern India, laid down, as the result of recent experience, that at the beginning of a famine "relief employment, at a subsistence wage, should be provided on large, fully-supervised works, which will be of permanent benefit to the country." The minute went on to say "the advantage of large works over petty local works is two-fold ; *firstly*, the obligation to do a full day's work at a low rate of wage, and to go some distance to work, keeps from seeking relief those who can support themselves otherwise; and, *secondly*, the money expended on such works bequeaths permanent benefits to the country." In appointing the Famine Commission of 1878, the Secretary of State, in his Despatch of the 10th January 1878, referred to this exposition of principle, and to Lord Lytton's visit to Madras and Mysore made with the object, among others, of enforcing it in those provinces. "I have already," wrote the Secretary of State, "fully approved of Your Excellency's proceedings in this respect, and do not doubt that you exercised a wise discretion" The Secretary of State then adds that "it is desirable, however, that for guidance in future famines the experience obtained of the working of the two

Recommendations of the Famine Commissioners regarding large works.

systems should be ascertained and recorded. The relative value of the work done for the same wage in each case, the effect of the larger works in discouraging peculation and the relief of applicants not in want, and the extent to which the distance of relief works can without undue hardship be used as a test of destitution are the points on which evidence is required." The Famine Commission took evidence on these points and fully considered the matter. Their final opinion is recorded in paragraph 128 of their report. They were in favour of large works. "The works selected should be of permanent utility and capable of employing a considerable number of persons (a large proportion of whom would be unskilled labourers) for a considerable period of time. . . . . If possible, one such work should be opened in each sub-division of a district in which severe distress prevails. It is not necessary, and may often be undesirable, to offer to every one work close to his door, but on the other hand it is unreasonable to expect people to travel great distances in order to obtain relief, or to make such a journey a condition precedent of their being received on relief works; and we think that such a test should not be applied." They recommend that such works should be immediately directed by officers of the Public Works Department, with whom civil officers should be associated. They add that "work might, however, be carried on under the civil officers for the purpose of giving employment to persons who have been in the receipt of gratuitous relief, and who, though beginning to recover from debility, are not yet strong enough to be sent off finally to the regular relief works."

Such were the recommendations of the Famine Commissioners on the reference made to them, which were accepted by the Government of India and the Secretary of State. The actual practice in this respect in different provinces has been described and compared at some length in paragraphs 166 to 173 of this report, and in paragraph 178 we have given an indication of our views on the subject. We do not dispute the conclusion of the Famine Commissioners that large works are to be preferred as the backbone of famine relief, and in the case of extensive and prolonged famine we regard them as indispensable. The policy of large works has been followed with great success in Burma and the Punjab, though in neither of these provinces was distress very acute or widespread. It was adopted, though not in the earlier stages of distress, in Bombay, and although hardships may have been caused in some cases by the sudden closing of small works on the introduction of a change of system, it has been clearly shown that in that province large works may in future be relied on as the backbone of relief operations. It has been carried out in the North-Western and Central Provinces, but in the former at least, the works, although large, were more numerous than in Bombay, so that as a rule not more than one-third of the workers resided on them. But while there is thus ample evidence of the feasibility and advantage of employing relief labourers on large and useful works at some distance from their homes, it is equally certain that such works cannot be exclusively relied on for the relief of all who are able to work. In the densely populated districts of Bengal, large works, however valuable, can never be the only or even the principal form of relief works. In the plateau districts of the Central Provinces they fail to attract the forest or aboriginal tribes, and in all provinces the necessity for supplementing them at times by small works near the homes of the people appears to have been established. We consider, therefore, that while large works should ordinarily be regarded as the mainstay of relief operations,

there are occasions when small works must also be largely resorted to, and be carried out either by professional or civil agency, according to circumstances.

Public and village works.

407. If the foregoing remarks are accepted their purport can be embodied in the code rules regarding programmes of relief works. It is evident that well-considered programmes should be regarded as the first essential for a well-conducted famine campaign. By present rules there are separate programmes for "*large*" and "*small*" works, which are defined as those which will employ respectively more or less than 90,000 day units of labour (*i.e.*, 1,000 labourers for three months). But this classification seems of little use, for as long as a programme shows the number of day units that a work will employ, a glance at this number suffices to show whether it is a large or small work in the code sense. We think it would be better to class all relief works under the heads of "*public works*," and "*village works*." Under the former head we would include all works the cost of which is properly chargeable to public funds, whether imperial, provincial, or incorporated or excluded local funds. Under the latter we would put all works whether large or small that would in ordinary times be executed at the cost of private individuals or communities, but which are suitable for relief works in times of famine, and can then be executed either at the cost of the State, or by means of loans wholly or partially recoverable from the parties benefited. Separate programmes for these two classes of works may well be prepared by the district officers, the former in consultation with the district engineers or local Public Works officers, the latter with the assistance of the district revenue staff. If the former programme is inadequate, the head of the Public Works Department should be responsible for taking what measures are possible to complete it. As long as the programme of public works is adequate for the purpose of meeting the first rushes of relief labourers the programme of village works need not be prepared in very great detail, but the more inadequate the former the greater attention must be paid to the latter, and when reliance will have to be placed on it almost exclusively the local Public Works officers should be directed to assist in elaborating it in the necessary detail, and to undertake the control of the works when started, if this is considered desirable by the local Government. When the programme of public works is adequate it will seldom be necessary to consult the Public Works Department regarding the village works programmes, and the question whether they should in time of famine undertake the control of such works, as well as of the public works, will depend upon all the circumstances of time and place. The two programmes would, however, form together the district programme, neither being in itself sufficient when distress is widespread. Each class of work has its peculiar advantages and disadvantages, and the relief of distress will be best carried out by a combination of the two programmes, the effectiveness of which will depend upon the completeness of each.

Programmes of public works.

408. As regards *public works*, which will include all improvements properly chargeable to district funds, the responsibility for maintaining an effective programme should we think be thrown more definitely on the Public Works Department. The only point in which the prescriptions of the codes relating to programmes of relief works appear to be defective is that the programmes of large works only include works actually sanctioned, or other works which have not been actually sanctioned, but the construction of which sooner or later is contemplated as desirable, whether

relief works are required or not. What is wanted is a more systematic method for including in the programmes works which, although not sanctioned or contemplated as desirable, will nevertheless be most effective as a means of famine relief. The best way of ensuring this is that the heads of districts when submitting their programmes should state distinctly if any large works are required outside their programmes, and if so, their approximate position and the number of labourers for whom relief should be provided. Whatever opinion may be held regarding the relative advantages of large and small works, the former when available must be regarded as the backbone of relief operations, and it should be the duty of those responsible for the district programmes to point out clearly when their programmes are deficient in this respect. They should of course also make suggestions for any work that will fulfil the required conditions, but whether they can make suggestions or not they should clearly point out where additional works are wanted. The Commissioner in forwarding the district programmes should in like manner point out their deficiencies, and whether he can make any suggestions for remedying them or not should call on the Public Works Department to see what can be done. The responsibility for making further proposals will then definitely rest upon the Public Works Department. It may be that the Chief Engineer will reply, either at once or after enquiry, that no such works can be proposed. If so, the way is clear, and it will be certain that for the part of the district in question reliance will have to be placed entirely upon small works. But it may be that works can be proposed for the purpose of filling up the programme, although some investigation will be necessary before they can be recommended for inclusion. This will generally be the case with minor irrigation projects and storage reservoirs. It will then be the duty of the Chief Engineer to take measures for the proper investigation of these *opera desiderata*. Investigation costs money and competent establishment is required for it. Projects are thus often shelved when there is no strong *primâ facie* evidence that they will be remunerative, but when it is shown that a project is wanted for the purpose of completing a relief programme the Chief Engineer should be responsible for providing both funds and men for its proper investigation, or should show cause why these should be withheld. We have elsewhere recommended that the cost of investigating new projects of a famine protective character should form a charge against the famine relief and insurance grant, and we think that the cost of investigating all projects that may be proposed mainly for completing the relief programmes would be a legitimate charge against the same fund, if it cannot otherwise be met. The codes provide that the Chief Engineer shall submit annually to the local Government a consolidated programme of relief works for the province. To this should be appended a statement showing the districts or parts of districts not adequately provided with large works, and it should be clearly stated whether no large works are possible in these tracts, or whether there are proposals that will be investigated or are under investigation.

Programmes of irrigation works.

409. In some provinces, *e.g.*, the Punjab, the North-Western Provinces and Bengal, there are two branches of the Public Works Department—the General (or Buildings and Roads) Branch and the Irrigation Branch. The preparation of programmes of public works for relief purposes would rest primarily with the Superintending Engineers of the former branch, whose circles are usually conterminous with civil

divisions. But it is most important that the Superintending Engineers of irrigation circles should also assist in the preparation of programmes. Extensions and improvements of existing irrigation systems, and the construction of new minor irrigation works will generally be the most desirable form of relief work, and the Superintending Engineers of irrigation circles should prepare their own programmes of such works, which after acceptance by the Chief Engineer, Irrigation Works, should be incorporated in the district programmes.

Improvements of irrigation works.

410. The irrigation department is, however, a commercial department, and extensions and improvements of the existing systems of irrigation works would not be recommended by the irrigation officers unless likely to be in themselves remunerative, or unless they were desirable improvements which though not in themselves remunerative must sooner or later be undertaken as a charge against the system, and as an essential part of the project. If such works are carried out as famine relief works, the normal value only of the work done will, under present rules, be charged to the project, the extra cost due to its being carried out on famine relief principles being charged to famine relief. But it has been represented that improvements in existing canal systems may often be recommended which, though in themselves desirable, will not really be worth even their normal cost, and would never be undertaken on their merits. In such cases the Irrigation Branch can be fairly asked to contribute or bear the charge of a portion only of the normal cost, just as a railway company or private proprietors might be willing to contribute a portion only of the cost of a relief work by which their property would be in some degree improved, though not sufficiently to justify their bearing the entire charge. This contention is correct in principle, though it may be doubted whether the number of cases of the kind that will occur in practice will be as numerous or important as has been represented, or whether they will often be near enough to the affected tracts to be of much value for relief purposes. Works of this kind might, however, be entered in the Irrigation Branch programmes, with suggestions by the Superintending Engineers as to the share of the normal cost that may fairly be charged to the Irrigation Branch. Final orders on this point would be passed by the local Government, if the amount that it was proposed to charge to the Irrigation Branch were within its power of sanction, and otherwise by the Government of India to whom the estimate would in the ordinary course of departmental routine be submitted for sanction.

New irrigation works.

411. As regards new irrigation works, chargeable either to famine protective works or to minor works irrigation, *i.e.*, chargeable to revenue, the case is different. In many parts of the country works of this kind can no doubt be proposed which, although unlikely to be directly remunerative, may nevertheless be justified on their merits as likely to improve the condition of the people and to prevent or mitigate distress in the future. If such works can be recommended on their merits, it would not be right that anything less than their normal cost, after deducting extra charges due to their being undertaken as relief works, should be charged against the projects. Financial returns shown in the accounts of the irrigation department, based upon figures of capital outlay which did not represent the true normal cost of construction, would be fictitious returns, and there is nothing to be gained by under-writing the capital cost in order to show

that such works are directly remunerative. The irrigation department is, no doubt, concerned to show as high a return as possible on its protective and minor irrigation works, but the primary justification for grants under these heads is not that the works constructed under them will prove directly remunerative, but that they will strengthen the agricultural community and mitigate distress in future. It is probably desirable that grants for protective and minor irrigation works should be given more liberally in future than they have been in the past, and it is at least certain that works of this kind may with advantage be undertaken on a very extensive scale when it is necessary to open relief works; but although the real importance of such works cannot be too strongly insisted on, no claim for greater liberality in respect of such grants is likely to command attention if it is based on returns which are demonstrably incorrect and misleading. While, therefore, it may fairly be contended that the financial results of existing irrigation works should not be unfairly obscured by charging against them, as a matter of course, the whole normal cost of improvements undertaken mainly for the purpose of affording employment for relief workers, the principle must also be maintained that the whole normal cost of new irrigation works should be charged against them. To reduce the capital account to the amount upon which a fair interest might be anticipated would unnecessarily obscure the financial results. The difference between this amount and the true normal cost will represent the price to be paid for the indirect advantages of the scheme, and the question whether such advantages are worth the price is one that can always be decided on its own merits, without a manipulation of the capital cost which will only result in the exhibition of fictitious returns. This question is of some importance, as it appears probable that irrigation schemes might occupy a more prominent position in programmes of relief works than has hitherto been the case, although in the Punjab they were very largely resorted to.

Railway works.

412. The public works programmes should also include such railway works as may be feasible, and should be prepared in communication with the officers of the Railway Department. The rules prescribed by the Government of India* regarding the inclusion of railway projects in the programme of relief works are sound, and require no modification. We understand, however, that an extensive railway construction programme is now maintained and annually reconsidered and revised in the Public Works Secretariat, and it may be possible to employ relief labour more extensively in future upon railway works which, though not finally sanctioned, may have been entered in these programmes. There may also often be minor works on railways to which those rules do not apply which would form useful relief works, such as the excavation of reservoirs at railway stations, diversions of road approaches when it is proposed to substitute an overhead for a level crossing, collection of ballast, etc. If some of these works though desirable are not worth the full normal cost, arrangements might be made here also for charging only a portion of their cost to the railway.

* In Circular Resolution No. 8—52, dated 21st March 1892.

Programmes of village works.

413. The public works programme having thus been made as full and complete as possible, the preparation of a programme of village works would devolve upon the civil officers. This programme would not be in as great detail as that for public works, but should give a general idea of the works that could advantageously be undertaken as relief works either with the assistance of advances by Government wholly

or partially recoverable, or at the cost of Government, of the benefits to be derived from them, and of the extent to which they may be relied upon as a means of employment. If on a comparison of this programme with that of the public works it appears that for any reason resort must be had mainly to village works, the Public Works Department should, if so directed by the local Government, take up the village works programme, and in conjunction with the civil authorities work it out in all further necessary detail. The two programmes should be regarded as supplemental rather than rival, and each should be maintained in sufficient completeness to permit the drawing up of the most suitable plan of campaign at the first warning of distress.

(ii) Test works.

Opening and conduct of test works.

414. The general provision of the codes as to test works is that the Collector must have power to start them to enable him to report with confidence whether the degree of distress existing does or does not call for famine relief, or will not require it very shortly. He is directed to use for the purpose ordinary works, in progress or required, under district or local boards, regulating them strictly in accordance with the provisions of the code rules for relief works. It is generally added that the tasks and wages should be fixed on code principles, and that the wage should not exceed the famine wage; but it is not distinctly said whether the wage may be less, or whether allowances for a day of rest or for dependants of workers should be granted. As to the practice in recent years we believe that such allowances have been usually withheld, and that in some cases the wage earnable by the workers has been limited to the minimum wage of the code. From the evidence before us we are disposed to hold that such reduction of the wage was unadvisable, and calculated to falsify the test by making it too repellent. On the other hand if test works are to be a reliable test it is generally necessary that the conditions should be strict. We therefore think that the following general conditions might with advantage be laid down for the guidance of Collectors in the exercise of their power of starting test works. The work shall be task-work, and the tasks shall be not less than by the code scale: the maximum wage earnable by the workers shall not exceed the code wage of their class, and shall not be less than it by more than one pice. Payment shall be made in strict proportion to results without the proviso of a minimum wage, and no allowances for a day of rest or for dependants on workers shall be given at commencement, or without the sanction of higher authority. We think such a system of test works will be found suitable for the purpose in most parts of India, and on most occasions, but we recognise that for some times and some tracts it may be too severe a test. We recommend therefore that Commissioners of Divisions should have power to direct allowances for a day of rest and for dependants to be given even at the test work stage if from experience they think it advisable; and we consider that the local Governments should have wide discretion to authorise the use at the test work stage of any systems of work, not essentially more liberal than the ordinary task-work system of the code, which they think best adapted to local conditions and the particular circumstances of the time.

Should if possible be under professional supervision.

415. We think that test works should, whenever possible, be conducted under the supervision of a competent professional officer, who would ordinarily be the district board's engineer or might be an officer of the Public Works Department placed at the

Collector's disposal for the purpose. In rural tracts the work should as far as possible be centrally situated among a number of villages supposed to be affected but not too near the largest ones; and in drawing conclusions from the attendance regard should be had to the distances from which the workers come.

(iii) Class of relief works to be opened.

416. As a general rule works under district boards or the Public Works Department of the class which we call public works in paragraph 407 should be first opened as relief works and should from the commencement form the backbone of the relief operations. But in cases in which no such works have been entered in the programmes, or can be carried out only at an excessive distance, say, more than 15 miles from the villages requiring relief, or in which it has been decided that small village works will be more generally advantageous to the people at large and the more effective or economical form of relief, arrangements should be made for opening such works. Ordinarily, however, village works should be reserved until the advent of the hot weather or as a reserve in case of epidemic disease. Village works may however with great advantage be undertaken, even in the earlier stages of distress, by land owners with the object of keeping their tenants or labourers together, and the land owners should be encouraged by loans wholly or partly recoverable to undertake them at this stage.

Class of relief works to be first opened.

417. The advantages of beginning with public in preference to village works are—

Advantages of public as compared with village works at first stage of operations.

(1) that they afford good training grounds for the establishment to be drawn on as works are multiplied;

(2) that they enable the relief officers to deal more readily with large rushes;

(3) that on them proper tasks and discipline can be enforced;

(4) that they sufficiently meet the circumstances of the labouring classes who are the first to leave their homes, and can do so without great inconvenience;

(5) village works are thereby held in reserve;

(6) the works are generally works of a useful if not remunerative character.

Village works provide relief for the agricultural population in the neighbourhood of their homes under easier and more congenial conditions than prevail on public works, but there is a danger of their becoming too popular if started too soon, and also of their being too soon exhausted in the event of prolonged distress. In the earlier stages of a famine the more respectable classes in the villages, especially the petty cultivators and proprietors, have resources and employment, and are not in as urgent need of relief as the labouring classes. They can also be conveniently aided at this stage by advances for wells and land improvements or for seed. As distress deepens they may require further assistance, and village works will give them this under conditions that are not degrading. But to prevent such works becoming unduly attractive, and to keep off from them the classes who may be more advantageously and conveniently

employed on the public relief works, the full amounts that can be earned should generally be appreciably less than on the public works, and it should be a question for the local Government to decide whether payment should not be made strictly by results without a minimum wage, and whether Sunday wages and gratuitous allowances to dependants should or should not be curtailed. Village works may, however, be fully opened from the outset in the case of hill or jungle tribes who cannot be induced to attend relief works except in the immediate vicinity of their homes, and for whom special measures will generally be required when distress threatens to become acute.

Ordinary public works should not be carried out on contract system after distress has been declared.

418. We are of opinion that as soon as distress requiring relief is admitted to exist, any public works that may be opened for its relief within the affected area, including those in progress at the time, should not, except for special reasons, be carried out under the ordinary departmental or contract system, though they may be conducted under one or other of the systems referred to in paragraphs 208 to 212, as may be prescribed in the provincial codes. We believe that at this stage some form of payment by results, or of family or village piece-work gangs, with or without supplementary provision for dependants, will often prove sufficient and effective, if carried out under professional supervision, and with due care in the adjusting of tasks or rates to the capacities of those seeking employment and with proper provision for infirm gangs. However helpful works carried out under the departmental or contract system may be when distress is threatening, we consider that little reliance can be placed on them after it has become distinct and general. Apart from the obvious disadvantages of the contract system, we regard it as most desirable that at the very earliest stages of declared distress works should be organized at once on the most appropriate of the systems that may be contemplated or prescribed in the provincial code. The establishments will thus from the first be constituted in accordance with the requirements of the code system selected, and can be carefully instructed in all the details of management, in anticipation of the rush of labour that will occur as distress deepens and relief works are multiplied.

Expediency of utilizing railways under construction as relief works.

419. We consider also that as soon as distress is apprehended the local Government should consider the expediency of taking over any large works that may be in progress or in contemplation within the affected tract under some other agency than that of the Public Works Department, and of utilizing them as relief works under the supervision of the Public Works officers. The most common and perhaps the only probable case of this kind is the construction of a branch or feeder line of railway under a company, which would ordinarily be carried out on the contract system. We recommend that whenever a work of this kind is available, which would be of value as a relief work, the local Government should arrange with the agent of the company to take over sections of the work within the affected districts and to carry out the work under one of the prescribed or permissible code systems, under the supervision of the Public Works officers, who will be responsible for its execution in accordance with the prescribed specification, while arrangements will be made under which the company will be eventually debited with the cost of the work actually performed at normal rates, to be agreed on beforehand. Ordinary railway earthwork and the

collection of ballast would both be very suitable for relief works. The proposal is, indeed, one that has been happily anticipated in the course of the late famine. The most noticeable instance was in Burma, where the principal relief work undertaken was the Meiktila-Myingyan Railway. The total estimate for this work included 70,603,000 cubic feet of earthwork and 2,202,000 cubic feet of ballast, costing at normal rates Rs. 7,02,320 and Rs. 1,32,000, respectively. This was opened as a relief work early in November 1896, and was closed in November of the following year, after giving employment to an average of 19,333 people for one year and nineteen days. During this period 61,265,000 cubic feet of earthwork were executed, and 678,397 cubic feet of ballast and 41,173 cubic feet of stone collected, the total outlay incurred being Rs. 10,52,900. The value of the work done, as estimated on behalf of the railway company, is said to have been about Rs. 8,25,545, so that the actual cost of the relief operations, after credit is given for this amount, did not exceed Rs. 2,26,345, or 27·54 per cent. of the value of the work done. In Bengal and Bombay large railway works were also carried out as relief works by Public Works officers on behalf of public companies, though this was not done at the earliest stage of the operations or until a considerable expenditure had been incurred upon works of a less useful character. On the other hand, the Katni-Saugor Railway which traverses portions of three of the most distressed districts in the Central Provinces, and was under construction in 1896-97, was, although admirably adapted for purposes of relief, of little real service. The people are indeed said to have flocked to the work in thousands, but as long as it was carried out on the ordinary contract system, were unable to obtain the barest subsistence on it. The idea of giving one contractor specially favourable rates on condition that he would arrange for the employment of a certain number of inefficient labourers was broached, but was dismissed as impracticable. The question of taking over sections of the railway and converting them into relief works does not appear, however, to have been considered. In view of the satisfactory arrangements made elsewhere there is no reason to suppose that the agent of the railway would have objected, unless for special and sufficient reasons; but to meet cases of this kind it may be suggested that in future agreements with railway companies, a clause might be inserted reserving to Government the right to take over the construction of any works in progress or contemplation if required for purposes of famine relief on terms that will involve no loss or extra cost to the company.

Exception to the rule for converting ordinary public works into relief works.

420. The proposal that all public works in districts in which distress has been declared should be carried out on relief principles is, of course, subject to exception in the case of works of such a character or requiring to be executed with such urgency as to demand the employment of professional labour under the ordinary public works or contract system, but this is already provided for in the codes which direct that such works shall not be classed as relief works or charged to famine funds. The point on which we wish to insist is that, as soon as more or less general distress and the necessity of relieving it are recognised, works intended to give such relief must be carried out on famine relief principles, that is, on one of the systems to be approved or prescribed in the provincial famine codes. The intervention of the ordinary public works contractors must be from that time done away with, except perhaps in a few cases in which, under the

special orders of the local Government and for local reasons, it may be permitted. The codes generally forbid the use of the contract system on relief works, but some of them treat the development of the ordinary system of public works as a proper remedy in the early stages of distress.

Advantage of expanding ordinary public works outside distressed districts in time of famine.

421. We do not, however, desire to underrate the immense importance and value of large public works conducted on the ordinary contract system in the period between the first warnings and the recognition of a state of distress requiring State relief, or in that immediately succeeding the closure of relief works, or in districts adjacent to the affected area in which the pressure may be severe, but not sufficiently pronounced to justify the initiation of regular relief measures. The Famine Commissioners in paragraph 136 of their report remark that when there is only "severe scarcity the Government will commonly find it sufficient to enlarge its ordinary works, so as to offer employment to greater numbers than usual, but without any change of system; and this, with the addition of some help in the villages to those incapable of work, will probably enable the people to tide over the season of distress." The word *scarcity* has in recent famine literature been used to indicate a more severe stage of distress than this, and is for instance applied in the North-Western Provinces to districts in which relief works, though extensively opened, are worked on a system of payment by results, to distinguish them from "famine districts" in which all who may flock to the works are entitled at least to a minimum wage. A scarcity district is one in which distress has been declared, and we have already indicated our opinion that when distress has been declared public works should be conducted on the most suitable of the approved systems for management of relief works. The expansion of ordinary public works without change of system is, no doubt, desirable before this stage is reached, or in adjacent districts in which this stage may never be reached at all, but the difficulty arises that the expansion of ordinary works generally involves an increase in the Public Works budget which cannot be easily arranged in famine years. It may, of course, be possible for the provincial Government to contract public works expenditure in parts of the province far removed from the affected area, or on works such as buildings or waterworks, which are of little use for the employment of relief labourers, or on which the outlay will be principally on account of materials. But as the obligation of meeting famine relief expenditure to the extent of its resources rests on the provincial Government, such savings would ordinarily be used not to expand ordinary public works outside the immediately distressed area, but to improve its financial position. The chances are thus against an active prosecution of ordinary public works outside the actual area of distress, however desirable such expenditure may be for the purpose of preventing distress from extending. We recognise the financial difficulty created in a province by famine conditions, and in India at large when the distress extends to several provinces at once. It may under such conditions become absolutely necessary to curtail expenditure in all departments, including even the Public Works Department, which is not for direct famine relief purposes. We do not wish to make any suggestion opposed to a policy which in certain conditions is the only one that can be prudently followed, but we think there is a danger, whenever scarcity threatens to increase the public expenditure, that ordinary public works outside the affected area may be hurriedly cut down without sufficient regard to the steadying effect that their prosecution would have in districts where, though distress

may not be sufficiently severe to justify the introduction of the machinery of famine relief, it may nevertheless be considerable on account of high prices and a more than usual demand for employment. So far as the Provincial or Imperial finances can afford it such works ought, in our opinion, to be at such a time expanded rather than contracted, in localities adjacent to those actually distressed, or in which there is reason to suppose the existence of an exceptional demand for labour. We think that weight should be given to these considerations by both the Provincial and the Imperial Governments in the adjustment of budgets to meet the demands of a famine campaign. In the case of productive works, such as railways or canals already in progress, there need be less hesitation in maintaining the ordinary grants for the year, or increasing them, even though the work may not be conducted on famine relief principles. Any additional grants that may be made for the purpose will involve, *pro tanto*, a reduction in the grants to be made in subsequent years, while the more rapid completion of the works will result in an earlier earning of revenue, and fruition of other benefits anticipated from their construction.

(iv) Organization and direction of relief works.

422. All the codes accept the principle that both large and small relief works should as far as possible be conducted under some professional supervision; and all more or less distinctly indicate that the Public Works Department should departmentally manage large and important works requiring skilled supervision. As to the extent to which other relief works should be placed under such departmental management the intentions of the codes appear to differ considerably. For example the Bengal code seems to exclude all other relief works, while most of the other codes seem to intend that departmental professional control shall extend, so far as possible, to all relief works of the kind which we propose in paragraph 407 to class as public works. We have given our opinion on the principle of this question in paragraph 236. Whatever principle may be adopted in the codes, a discretion will have to be left to the local Governments to decide in detail what relief works should be managed departmentally, and what by civil agency. The management by the Public Works Department of all relief works entrusted to it is however to be subject to a power of control by the Commissioners of divisions and by Magistrates and Collectors or Deputy Commissioners of districts of all points affecting the efficiency of relief. To this extent a large degree of joint control and joint responsibility is inevitable in the case of relief works managed by the Department of Public Works. In the case of works not under such management, the Chief Engineer and other supervising officers of the Public Works Department are only responsible for any special duties which may be imposed upon them by the Government, and executive officers of the department employed on such works must be considered to be temporarily deputed to serve under the civil divisional and district authorities. In such case the latter authorities are primarily responsible for the whole management, on the construction side as well as on the relief side; but the professional officers deputed to serve under them are also responsible for the whole management in a secondary degree as is laid down in some of the codes.

Agency by which relief works should be carried out.

423. Our views as to the responsibilities of the officers of the Public Works Department for the conduct of works entrusted to their direction, and of their position in relation to the civil officers, have already been indicated in paragraphs 235—237 of this

Responsibilities of officers of the Public Works Department.

report. We doubt however whether it is desirable to define their position and responsibilities more rigidly than in the following terms, which have been taken with some slight modifications and additions from the proposed revised famine code for the North-Western Provinces and Oudh. The Superintending Engineer in his circle and the Divisional Engineer in his division should be responsible for the proper conduct of all departmental relief operations by their respective subordinates in accordance with the rules of the famine and Public Works Department codes and such supplementary orders as may be issued from time to time by the local Government. They should by personal communication and otherwise keep themselves in constant touch with the Commissioner and Collector on all matters not of a strictly professional nature, such as the opening, extension, transfer or cessation of departmental relief works. Tasks and wages, though on ordinary works matters of a professional nature, should not on relief works be fixed or altered by the Superintending or Divisional Engineer without a reference to, and the concurrence of, the Commissioner or Collector. The agencies recognised by Government for the relief of scarcity and famine are the civil administrative staff (including district and municipal boards), the Public Works Department, and relief committees of private persons organized under official control. In any case in which the civil staff and Public Works departmental agencies appear to overlap and difficulties are thereby produced, the Collector should apply a remedy. Should his orders be questioned as contravening departmental orders, a reference may be made to the Divisional or Famine Commissioner, as the case may be, whose orders should be carried out at once, and should be final, subject to a reference to Government. The Commissioner within his division, and the Collector within his district, will exercise general control over all relief operations in times of scarcity or famine. Within a district the Collector will be the agent of Government for carrying out the measures of relief which may be introduced. He will exercise general supervision over all works and arrangements for giving relief within his district, and will be responsible to Government for their efficiency. His decision should be accepted pending reference to superior authority in all matters relating to the employment and wages of the labourers, the opening or closing of works, the arrangements for, and actual distribution of, gratuitous relief, and generally in all other matters which are not of a professional nature. Officers of all departments employed on famine duty within the limits of his district should obey his orders.

Size of public works charges.

424. The size and nature of the public works which will be opened in any particular famine must depend on the anticipated extent and severity of the distress. The number of persons employed on a charge under the Public Works Department should not exceed 5,000 persons. When this number is considerably exceeded, a new charge should be opened to which some of the labourers should be drafted. When village works are carried out by the Public Works Department, a relief camp or headquarters of a charge should be formed in a central position among a group of villages, so that there may be ordinarily not less than 3,000 workers in a charge. These workers may be employed at one or more villages at a time, but not exclusively in their own villages, works in each village being completed in turn.

Management of village works.

425. When it is necessary to open village works on an extensive scale in consequence of widespread or acute distress, they should, as far as possible, be managed professionally on the same principles, as near as may be, as public relief works. Detached village works, or works carried out by means of advances from Government, will be carried out by the Collector with the aid of his assistants and the relief circle staff under the rules to be framed for such works. When such works are likely to be numerous, they should if possible be supervised by a Civil Works Inspector, appointed by the Public Works Department under the orders of Government, but working entirely under the orders of the Collector.

Officers in charge of relief works.

426. The Famine Commission dealt with the subject of management of relief works in paragraph 129 of their report. After saying that "the immediate direction of these works should be entrusted to the officers of the Public Works Department whose special training best qualifies them for such a duty, and who would be responsible for enforcing discipline and directing the labour," they go on to say that "Civil officers should be appointed to co-operate with the Public Works officers in classifying the labourers, and seeing that they are properly paid and tasked according to their strength." This principle of appointing a civil officer to each large work, or group of smaller works, to have charge of matters affecting relief, or in other words of all matters not relating to construction and direction of the work, has been approved by experience, and is provided for in most of the codes. But as to whether such civil officer should be the "officer in charge" of the work, or an assistant to the Public Works official or other professional officer whose special duties are those of construction and direction of labour, is a point which the provisions of the codes either leave open or to some extent decide differently. It is evidently desirable that some one officer resident on the work should subject to control from above have chief command and be "the officer in charge." We think that the question which of the two should hold this position must depend upon their comparative social and official rank and education, and must be left to be decided by the officers of the Public Works Department who have the supervision of the work, in consultation with the civil authorities in doubtful cases. To make this system work smoothly we think that the services of these civil officers attached to relief works for famine duty should be placed at the disposal of the Public Works Department. They should be selected and appointed by the civil authorities, but be posted and transferred by the Superintending Engineer in communication with the Commissioner or district officer. With reference to the importance of their duties it is very necessary that these officers should be of the best class available. Experience shows that the best class for the work is that of naib-tahsildar or assistant mamlatdar, or of approved candidates for those offices. Whether the civil officer is "officer in charge" or not, his special duties would be the following :—

(i) The admission and registration of all applicants for employment.
(ii) The classification and treatment of workers and dependants.
(iii) The calculation and payment of wages.
(iv) Market arrangements and the supply of food.
(v) Hearing and investigating complaints.
(vi) Hospital and sanitary arrangements.
(vii) The care of children and infirm persons.
(viii) The submission of accounts and reports.

427. Work should be set out and the necessary daily or periodical measurements made by sub-overseers or work agents of that class, who should be carefully instructed and trained in their duties by the resident officer in charge, if he is a professional officer, or if he is a civil officer by the professional inspecting officer. As the demand for work agents will increase as works multiply, this matter will require very earnest attention.

Work Agents.

428. In the early stages of famine and when sufficient professional establishment of superior grade is available the resident "officer in charge" of a relief work should usually be a Public Works officer. As the number of charges increase the supply of Public Works officers of superior grade will become too short for them to remain in resident charge, and the most competent of the civil officers should then be placed in responsible charge of the relief camps, the Public Works officers and subordinates visiting them in succession at frequent intervals to supervise the work of the work agents, to check the daily returns and payments, and to exercise generally all the supervision required.

Arrangements for charge of works as the number of charges increase.

(*v*) *Classification and wage-scale of daily labourers.*

429. One of the most important questions that has engaged our attention has been that of the classification and daily wage of relief labourers when employed upon task-work. As the wage-scale must depend upon the classification, the two points can only be considered together. The prescriptions of the provincial codes as regards classification and wages follow almost *verbatim* the orders contained in the Government of India Resolution No. 35, dated the 24th August 1893. The deviations from these orders which occurred in the different provinces have already been described at some length in chapter IV of our report, but it will now be convenient to trace the history of the orders themselves, and to compare them with the original recommendations of the Famine Commission, as contained in paragraphs 131,132 and 184 of their report, which are as below.

Recommendations of the Famine Commissioners as to classification and wages of labourers.

131. It has been proved by experience that when there is little to do in the fields, large numbers of people are apt to flock to get employment on Government works although there is not any such general need as to justify the offer of work to all comers. This is particularly the case if the task is light and discipline slack, and too easy terms may even have the effect of drawing labour from its legitimate sphere, and discouraging the continuance or resumption of ordinary agricultural occupations. It is therefore necessary that proper discipline should be maintained, and that, though all applicants should be received, certain self-acting tests of wage and labour should be enforced to prevent the relief work from being so light or unduly attractive as to induce any to remain who are not really in want. The wage should be adjusted from time to time so as to provide sufficient food for the labourer's support, allowing him one day's rest in the week; and separate rates should be prescribed suitable for the various classes of persons as well as for different ages and sexes. A margin should be left with the view of giving security against accidental error on the side of deficiency, not with the view of providing the labourer with the power of saving, and care should be taken

The wage and the task.

that penalties for wilful idleness, in the form of deductions from the wage, should not be so large or so often repeated as to have the effect of reducing the food of the labourer below what is necessary for subsistence. The wage should be paid if possible daily, otherwise at intervals of not more than three or four days, and the payment should be superintended by a thoroughly trustworthy officer. The labour would be a task fixed according to the capabilities of the labourers, who should be divided into suitable classes for this purpose, and care should be taken to classify and employ them so as not to break up families, which should as far as practicable be enabled to work together. In apportioning the task, the fact that a large proportion of the labourers are doing unaccustomed work, that many may be physically and morally depressed, and that the disruption of their ordinary life, and the novelty of their position on relief works probably act injuriously on their bodily powers, should be borne in mind. The full task demanded from such persons should not be more than 75 per cent. of that commonly performed by labourers in ordinary times, and from the less capable labourers a still smaller task should be required.

Piece-work.

132. The contract system in its ordinary form, under which the labourers become the servants of the contractor, on whom all responsibilities for their payment rest, should be prohibited on relief works, as it is incompatible with that direct supervision and control on the part of the supervising officer, and that free communication between him and the labourers, which are essential to secure the effectiveness of the relief. The method of payment by the piece may, however, be introduced with advantage, provided that it is optional with the labourers to choose between it and the daily wage. One or more piece-work gangs might therefore be attached to each large relief work, in which all who are both able-bodied and skilful labourers should be classed, and to which those who are improving in strength and skill may, if they wish it, be transferred. The rates should be so fixed (with reference to the price of food-grain) as to give a little more than the ordinary daily wage in return for the quantity of work likely to be performed. Such increased earnings may tend to encourage a spirit of industry among the labourers which will be beneficial to all; but it should be remembered that it is not expedient to add to the outlay on relief, or to the consumption of food beyond what is essential, and that no object is to be gained by the early completion of any work put in hand. Again, at the end of a famine, if any able-bodied labourers are disinclined to go back to their ordinary work, a system of piece-work may be used with lowered rates, to induce them to go.

* * * * * * * * *

Amount of food required.

184. One of these is the amount of food required by workers and non-workers. The conclusion we draw from a careful examination of the evidence of authorities in all parts of India is, that on an average a ration of about 1½ lbs. per diem of the meal or flour of the common coarser grain of the country suffices for an ordinary working adult male. In the rice-eating countries an equal weight of rice may be accepted in lieu of flour, and in any case the ration should include a suitable proportion of pulse. A man doing light work would require about 1¼ lbs.; and the ration which consists of 1 lb. of flour with a little pulse has been found sufficient to support life in numerous relief-houses, where no work is exacted, all over the country. On these bases the diet scale should be built up, it being understood that a female requires a little less than a male, a child below 12 years of age about half the allowance of an adult male, and a non-working child below six or seven about half as much as a working child. On relief works, however, where a money wage is given,

the rate of pay should be such as to leave a slight margin above the actual cost of the flour, so as to allow for the purchase of salt, pepper, and other condiments and firewood, and to avoid the risk of the wage being insufficient to purchase the full ration of food. Whenever it is necessary to supply people with a kind of food to which they are unaccustomed, the result should be carefuly watched, and endeavour should be made to counteract, by some adjustment of the dietary, the unfavourable results which will probably arise from the change.

Summary of the Famine Commission's recommendations.

430. The Famine Commission thus recommended that all labourers who were both able-bodied and skilful (corresponding to class A of the resolution of August 1893) should not be paid as daily labourers at all, but should be employed on piece-work, the rates for which should be so fixed, with reference to the price of food-grain, as to give a little more than the ordinary daily wage in return for the quantity of work likely to be performed. They also suggested that as other labourers improved in strength and skill, they might, if they wished it, be transferred to these piece-work gangs, and so be given an opportunity of earning a little more than the ordinary daily wage. But they considered that relief works could not be conducted entirely on the piece-work system, for reasons which are stated more fully in paragraph 133 of their report, and that it would be necessary to employ the great majority of the workers on a daily wage, at separate rates "suitable for the various classes of persons, as well as for different ages and sexes." It was recommended that the full task to be demanded from the most capable of these daily labourers "should not be more than 75 per cent. of that commonly performed by labourers in ordinary times, and from the less capable labourers a still smaller task should be required." For all "the labour would be a task fixed according to the capabilities of the labourers, who should be divided into suitable classes for this purpose, and care should be taken to classify and employ them so as not to break up families, which should as far as practicable be enabled to work together." As regards wages the Commission contemplated different rates for different classes, and also for different ages and sexes within the same class, the governing principle being, not that the wage should be strictly proportioned to the task, *i.e.* to the capacity of the worker, but so as to provide in each case sufficient food for the labourer's support, allowing him one day's rest in the week, a margin being "left with the view of giving security against accidental error on the side of deficiency, not with the view of providing the labourer with the power of saving." The question of the amount of food required by workers and non-workers is considered in paragraph 184 of the report. The full ration for an ordinary adult male and for one doing light work is stated, but not very precisely, and also the minimum ration which had been found sufficient to support life in relief-houses when no work is exacted. It is stated that a female requires a little less than a male, a child below 12 years of age about half the allowance of an adult male, and a non-working child below six or seven about half as much as a working child.

Full and minimum rations of the provisional code.

431. The recommendations of the Commission both as regards the classification of workers, and the wage to be paid to each class and sub-class, were thus very general, and as was unavoidable at the time, dealt with principles rather than with details. No suggestions were made as to the number of

classes, or as to the relative proportions of the tasks and wages to be assigned to each class, or to different ages and sexes within the same class, while the proposed rations were not stated in sufficient detail to permit of their evaluation in terms of a grain-equivalent. These omissions were to a great extent supplied in the provisional code, which was issued by the Government of India with their circular resolution No. 44-F., dated 9th June 1883. In that code the full and minimum rations prescribed for workers and the penal ration for labourers sent to a poor-house for refusing to work were as follows :—

Description of ration.		For a man.	For a woman.	For children.
		lb oz.	lb oz.	
Full ...	Flour of the common grain used in the country, or cleaned rice ...	1 8	1 4	¾, ½ and ¼ according to age and requirements.
	Pulse	0 4	0 4	
	Salt	0 ½	0 ½	
	Ghi or oil	0 1	0 ½	
	Condiments and vegetables	0 1	0 1	
Minimum ...	Flour of the common grain used in the country, or cleaned rice ...	1 0	0 14	¾, ½ and ¼ according to age and requirements.
	Pulse	0 2	0 2	
	Salt	0 ⅓	0 ⅓	
	Ghi or oil	0 ⅓	0 ⅓	
	Condiments and vegetables	0 ½	0 ½	
Penal ...	Flour, grain or rice ...	0 14	0 12	Not stated.
	Pulse	0 1	0 1	
	Salt	0 ¼	0 ¼	

Classification of labourers under the provisional code.

432. The provisional code recognised three classes of labourers, which are thus defined in sections 39 and 71 :—

Class.	Civil Agency works.	Professional Agency works.
(*a*) ...	Able-bodied persons accustomed to labour.	Able-bodied persons accustomed to labour of the kind required at the works.
(*b*) ...	Able-bodied persons not so accustomed.	Able-bodied persons not so accustomed.
(*c*) ...	Persons not able-bodied, but fit for light employment of the kind required at the work.	Persons not able-bodied who demand employment at the works.

Professional agency works were defined as those conducted under the direct control of the Public Works Department, whereas civil agency works were those which "whether managed by a civil or professional officer, are under the control of the district authority." Broadly speaking, it may be said that by professional agency works were meant public works of general utility, while civil agency works would consist largely of village works undertaken solely for the

purpose of employing labour, and not on account of their intrinsic merit as public improvements. The rules as to wages varied in accordance with this distinction. In accordance with the recommendations of the Famine Commission the code contemplated that all workers of the (*a*) class should be employed on piece-work, and should be, as far as possible, drafted to the works under professional agency, and on such works it was directed under section 132 that "payment for labour on professional agency works may be made at the rates ordinarily given under the rules in force in the Public Works Department, provided that the sum which a labourer can ordinarily be expected to earn by a fair day's labour shall in no case be less than the full wage prescribed in section 131," that is, than "the amount of money which at the current prices is sufficient to purchase a full ration." It was thus intended that on professional agency works all persons of class (*a*) should be given piece-work with rates so adjusted that by extra industry they might be enabled to earn something more than the full wage. As regards persons in classes (*b*) and (*c*) who might demand employment upon professional agency works, section 72 provides for their transfer to class (*a*) whenever fit to fulfil the conditions thereby involved, but until such transfer they would be employed under the rules for civil agency works. Section 73 provides that on the opening of a professional agency work "the Commissioner may either tell off certain portions of it as subsidiary, or else order the opening of a separate subsidiary work for the employment of persons in classes (*b*) and (*c*): such subsidiary work shall be deemed to be a civil agency work, and shall be administered in all respects under the rules laid down for civil agency works by the engineer officer in charge of the professional agency work. It will, however, ordinarily be expedient, in the case of large numbers coming to these subsidiary works, for the Commissioner to appoint a civil officer to conduct them." As regards civil agency works, section 40 directs that all applicants for admission shall be received, but that "those who come under classes (*a*) and (*b*) shall be drafted from time to time to professional agency works, when any such works have been opened and designated for the purpose of receiving such drafts." On civil agency works it was provided under section 43 that "the system of payments by results or piece-work may be introduced where practicable," but that "persons unaccustomed to labour or weakly persons", [*i.e.*, in classes (*b*) or (*c*)] "shall, as far as possible, be separated from able-bodied labourers accustomed to labour and provided with suitable work, and remunerated in accordance with the rates prescribed in section 134." Section 134 prescribes that in no case shall payment for labour on civil agency works, when made according to task, be greater than 75 per cent. of the full wage, nor less than the minimum wage, that is, the amount which at the current rates is sufficient to purchase the minimum ration. Lastly, as regards piece-workers on civil agency works, section 133 provides that the payments "shall be so arranged that the sum which able-bodied labourers can ordinarily be expected to earn, shall be, as nearly as possible, equal to the full wage prescribed in section 131."

Summary of provisions of provisional code as to classification and wages.

433. The provisional code thus evidently contemplated that subject to the necessity of not breaking up families too much, and to the co-existence of works under both agencies, all able-bodied persons accustomed to labour, and all who, though not at first accustomed and able-bodied, might afterwards become fit, should be employed on the works under professional agency as piece-workers,

and that all less capable labourers should be employed on civil agency works as task-workers. It was recognised, however, that a certain number of persons of the capable class would come for employment on works under civil agency whom it might not be possible to draft to the professional agency works, and, on the other hand, that many persons of the less capable or incapable classes would frequently demand employment on the latter works. It provided, therefore, that labourers of the capable class on civil agency works might be given piece-work, like those on professional agency works, but with this difference that, while the rates on the latter should be adjusted so as to allow the piece-worker by extra industry to earn something more than the full wage, they should be so arranged on the former as to limit the earnings to the full wage. A short task on the part of labourers of this class would on both kinds of works entail short payment without limit, but on civil agency works, whatever the task performed, the payment was to be limited to the full wage. Labourers in classes (*b*) and (*c*), or those who were not employed on piece-work, were on both kinds of works to receive wages varying from 75 per cent. of the full wage to something not less than the minimum wage. The full and minimum wages are defined under sections 130 and 131 as the amounts of money which at the current prices are sufficient to purchase a full or minimum ration. Under this definition no margin is provided "with the view of giving security against accidental error on the side of deficiency," or "to avoid the risk of the wage being insufficient to purchase the full ration of food," and it may be assumed, therefore, that the quantities of the rations were so fixed as to secure the former kind of margin and that the other was not thought necessary. On the other hand, it must be pointed out that the principal item of the rations is expressed in terms of "flour of the common grain used in the country, or cleaned rice," and that in converting the rations into grain equivalents some allowance must be made for cost and loss in grinding or cleaning, that is for the difference between the cost of equal weights of grain and flour.

In issuing the provisional code the Government of India remarked (see paragraph 28 of resolution No. 44-F., dated 9th June 1883) that "the principle upon which the Government of India has framed the scale of wages embodied in the code is that the wages should be the lowest amount sufficient to maintain health under given circumstances. While the duty of the Government is to save life, it is not bound to maintain the labouring community at its normal level of comfort. To do so would be unjust to other sections of the community besides prolonging the period for which the labouring population would cling to the relief works. The scale laid down in chapter X is believed to be sufficiently liberal." On this point, however, the opinions of the local Governments were invited.

Classification prescribed in Government of India Circular Resolution of March 1892.

434. The question of classification and wages was again next considered in Government of India Circular Resolution No. 6—44, dated 17th March 1892. The classifications of sections 39 and 71 of the provisional code were combined so as to give four classes, which were defined as follows:—

A.—Able-bodied persons accustomed to labour of the kind required at professional agency works [*corresponding to class (a), professional agency works in the provisional code*].

B.—Able-bodied persons accustomed to labour, but not to labour of the kind required on professional agency works [*corresponding to class (a), civil agency works of provisional code*].

C.—Able-bodied persons not accustomed to labour.

D.—Persons not able-bodied, but fit for light employment of the kind required at civil agency works.

This is the origin of the fourfold classification adopted in the resolution of August 1893, which is embodied in the present provincial codes.

In this resolution an apprehension was expressed that section 132 of the provisional code might be taken to mean that no maximum limit should be imposed to the amount which a piece-worker on professional agency works (new class A) might be allowed to earn in excess of the full wage of the code, and it was pointed out that this was opposed to the intention of the Famine Commission that even skilful and able-bodied labourers should only receive "a little more than the ordinary wage," which would, in the terms of the provisional famine code, mean "a little more than the full wage." Some doubt was expressed as to the system that might be followed by local Governments in distributing able-bodied persons accustomed to labour between the two new classes A and B, and information was called for on this point, and also on the relation between the money wage actually given and the money equivalent of the famine ration at current prices. In the meanwhile it was ruled that labourers in classes A and B should receive the full wage of the provisional code, together with a margin, which should be small for class A, and smaller still for class B, the degrees of margin depending on the percentage of the able-bodied labourers placed in class A. The wage of class C was not to exceed the full wage, but was to be determined in general accordance with the principles of sections 133 and 134 of the provisional code, that is, if payment were made by results, the earnings should be as nearly as possible equal to the full wage, but otherwise should be limited to 75 per cent. of that wage It may, however, be pointed out that the provisional code did not contemplate any margin in excess of the full wage for labourers of class (*a*) on civil agency works, *i.e.*, class B of the new classification.

435. After receipt of replies from local Governments the final orders of the Government of India were issued in their resolution No. 35—33, dated 24th August 1893. The fourfold classification of the resolution of March 1892 was retained, but owing to the definite abandonment of the terms "professional agency" and "civil agency," the definitions of classes A and B were verbally altered by the substitution of the word "*ordinary*" for the words "*professional agency*," and that for class D by the substitution of the words "*on relief works*" for the words "*of the kind required at civil agency works*." The amended definitions are those adopted in all the present codes. In paragraph 7 of the resolution it was ordered that the use of the term piece-work should be abandoned, because, as ordinarily used, it was held to imply no limit to the task that might be performed and the wage that might be earned. It was ruled that the maximum earnings of a labourer of class A should be restricted to the full wage of the provisional code, without any margin, and this was to be paid only on the performance of a task equal to the amount of work ordinarily performed by able-bodied labourers on ordinary works. At the other end of the scale, persons in class D were to receive the minimum wage, the task being only such as to give weakly relief workers a reasonable amount of healthy employment. Intermediate between these were to be classes B and C, the task for the former being from 10 to 15 per cent., and that for the

Resolution of August 1893.

latter about 25 per cent., below the A task, the wages for these classes being intermediate between the full and the minimum wage.

For the sake of simplicity it was directed that the wage of each class might be expressed in terms of the grain equivalent, which was defined as "the amount of grain of which the value is in ordinary times equivalent to the total value of the various items of the ration," the grain selected as a basis for calculation being in every case the "staple or staples in ordinary consumption in the affected tracts, and not the more expensive classes of grain which, though occasionally consumed in times of plenty, are abandoned for cheaper grains as soon as pressure sets in." It was added that "after a careful review of the statistics indicating the relations existing at various times in each province between the price of the staple grain and the prices of other items of the ration, the Governor-General in Council is satisfied that the cost of the other items in the minimum adult male ration will seldom, if ever, be found to be more than $\frac{3}{4}$ths of the grain item." Under the method of grain equivalents therefore the grain equivalent of a given ration would be equal to $1\frac{3}{4}$ times the weight of the grain item. It was recognised that under this method there would generally be a margin in favour of the worker, which would increase as scarcity intensifies and the price of grain rises, and decrease as prices fall, but His Excellency the Governor-General in Council did "not regard this result as a serious disadvantage." It was, however, provided that in cases when the assumption of the $1\frac{3}{4}$ ratio would lead to a material diminution in the margin or to an extravagant expansion of it, the wage might be calculated from time to time in terms of the money value of all the component items of the ration at current prices.

Grain wage scale of Resolution of August 1893.

436. Working on this principle the full and minimum wages for classes A and D, respectively, were declared to be as follows, in terms of the grain item of the ration :—

Full—

Male	...	...	...	$1\frac{1}{2}$ lbs. × 1·75 = $2\frac{5}{8}$ lbs.
Female	...	...	...	$1\frac{1}{4}$ lbs. × 1·75 = $2\frac{3}{8}$ lbs.*

Minimum—

Male	...	...	...	1 lb. × 1·75 = $1\frac{3}{4}$ lbs.
Female	...	...	...	$\frac{7}{8}$ lb. × 1·75 = $1\frac{7}{16}$ lbs.†

The wages for the intermediate B and C classes were obtained by interpolation, the grain wage scale for the four classes being as below :—

Class.	Weight in lbs.		Weight in *chattaks*.	
	Male.	Female.	Male.	Female.
Class A	$2\frac{5}{8}$	$2\frac{3}{8}$ (*a*)	21	19 (*a*)
„ B	$2\frac{3}{8}$	$2\frac{1}{4}$ (*b*)	19	17 (*b*)
„ C	2	$1\frac{7}{8}$	16	15
„ D	$1\frac{3}{4}$	$1\frac{5}{8}$ (*c*)	14	13 (*c*)
Minimum for all classes				

* Should be $2\frac{3}{16}$lbs. arithmetically.

† Should be $1\frac{3}{32}\frac{7}{2}$lbs. arithmetically. The Female minimum was afterwards altered to $1\frac{3}{8}$lbs.

(*a*) Should be $2\frac{3}{16}$lbs. or $17\frac{1}{2}$ chattaks, arithmetically.

(*b*) $2\frac{1}{4}$lbs. = 18 chattaks, but probably $2\frac{1}{8}$lbs. was intended. The Madras code allows 18 chattaks.

(*c*) Should be $1\frac{3}{32}\frac{7}{2}$lbs. or $12\frac{1}{2}$ chattaks, arithmetically.

The weights given in the two last columns are based on the assumption that a chattak is equal to one-eighth of a lb., an assumption involving a slight error of about $2\frac{1}{2}$ per cent. in favour of the worker. This was allowed intentionally. As regards children it was ruled that their wages or allowances should be determined on a consideration of their ages, their powers of work, and their requirements, but that they should not be less than one-quarter or more than three-quarters of the wages allowed for adult males. The class was not specified, so that the strict application of this rule would involve the distribution of children as well as adults into four classes.

Adoption of foregoing wage scale in all provincial codes.

437. The wage-scale so laid down, which has been adopted in all the provincial codes, was thus based on the rations proposed in the provisional code, which are stated in the resolution to have been determined in 1883 after consultation with medical experts, and after careful comparison with standards adopted in jails and elsewhere, and to have been found by subsequent experience to be sufficient. The introduction of the grain-equivalent method allowed, however, in many cases a considerable margin which was not contemplated in the provisional code, except in so far as needed to cover the conversion of grain into flour; but the use of this method though recommended for general adoption was not obligatory, and it was left open to local Governments to prescribe the calculation of wages in the manner indicated by section 130 of the provisional code.

North-Western Provinces system of classification.

438. Having now described sufficiently the origin of the code system of classification and the corresponding scale of grain wages, we may proceed to consider, in the first place, the method of classification that may be recommended for general adoption in future. It may be premised that classification for the payment of wages is required when relief labourers are employed on task-work or a daily wage, not when payment is made strictly by results. There will probably, however, be on all works a number of persons who cannot be paid by the piece or otherwise than as daily labourers, and even if piece-work were universal a rational classification of workers and corresponding wage scale, showing the amounts considered necessary for supporting the individuals in each class in health while employed on the works, will always be necessary as a basis for fixing and scrutinizing the rates paid for piece-work. Some system of classification must, therefore, be regarded as indispensable, but the code system has in practice proved unworkable, and is in theory indefensible, for reasons that have been stated at length in paragraphs 192 to 194 of this report. We have there indicated a preference for the more rational system initiated in the North-Western Provinces, under which the mass of relief workers are broadly divided into two great classes, consisting of the able-bodied workers who can dig and of the weaker or less skilled persons who can only carry a load on their heads. The Government of India had, in their resolution, No. 31—237-2-F., dated the 25th October 1897, before the constitution of our Commission, invited the opinions of the local Governments on a proposed system of classification based essentially on the system followed in the North-Western Provinces, but with some modification in details. We have considered the replies which have been received from the local Governments, and now make the following recommendations in regard to the classification of relief workers employed on task-work.

439. We recommend that on all works in which earth-work is the main form of relief all adult relief workers should be divided into two main classes. Class I, or the *digger* class, will include all able-bodied persons who are capable of performing a full task as diggers, a full task being defined as 75 per cent. of the digging task usually performed by able-bodied labourers on ordinary works. Class II, or the *carrier* class, will include all other adult labourers who are given a fair or moderate task as carriers, or on other work requiring no special skill or aptitude, and also all juvenile adults, *i.e.*, boys and girls between the ages of 12 and 16. Class I will, therefore, consist almost entirely of men, though women who are capable diggers may be admitted into it. Class II will usually comprise all the females on the work over 12 years of age, all boys between the ages of 12 and 16, and all old or feeble men who are unable to do anything more than carry. The task to be given to members of this class will depend upon circumstances. When the proportion of carriers to diggers is excessive they will unavoidably be lightly tasked, but care should be taken to prevent excessive tasking on the few occasions in which the conditions are reversed, which can always be done by employing the superfluous diggers as carriers. The maximum carrying task for a member of class II should not ordinarily be more than half or less than a third of that usually performed by able-bodied labourers on ordinary works, and appropriate rules for the determination of this limit should be laid down by the local Government in the Public Works Department. Some suggestions on this subject will be found in the appendix to our report discussing the task for carriers.

Recommendations as to classification of workers in future.

There will remain the working children under 12, who will form a separate class, which may be called class III. Opinions are divided as to the minimum limit of age at which children should be permitted to work. The limit under the present codes is 7 years of age, but many officers are of opinion that children under 10 should not be permitted on the works, as they only play about and get into everybody's way, and that exceptions made in favour of those who may show some willingness to working will only open a door for favouritism on the part of the subordinates. We are of opinion that, in accordance with the custom of the country, children who are willing and apt workers and not under 8 years of age should be permitted to work, but we would leave it to local Governments to prescribe a higher minimum limit if thought necessary, but not so as to exceed 10 years. Any limit can only be proposed for guidance, as in practice it is impossible to determine the exact age. The officer in charge of a work should, however, be empowered to transfer from this class to that of non-working or dependent children any children who are found to get in the way, by idling or playing on the works. Working children will generally be employed as carriers and should be regarded as half carrier units, or given tasks equal to half those of the members of class II. We do not think that working children should be liable to fine.

It has been suggested above that when there is an excess of diggers, superfluous diggers may be employed on carrying. This will not necessarily involve their transfer to the lower class, as if able-bodied and capable they may be tasked as equal to $1\frac{1}{2}$ or 2 carrier units and still be graded and paid as in class I. Conversely when carriers are in excess, some of the more capable may be employed as diggers and given a half digger's task, still receiving the wage of class

II. The classification proposed is primarily adapted for earth-work which is the principal form of relief work. It may, however, be applied to many other forms of work, the principle being to employ the able-bodied and skilful labourers on work that is beyond the capacity of the women and children. When all are employed on the same work, as in metal breaking, class I should be required to perform a task not less than 1½ times or more than twice the task demanded from class II.

Special class.

440. On almost all works there will be a few to whom it may be necessary to pay a higher wage than that allowed for class I. These may include mates or heads of gangs or others holding a slightly responsible position, or labourers with special qualifications, such as quarrymen, water-carriers or others, whom it is necessary to entertain for the proper control of the labour or prosecution of the work. Opinions are divided as to whether persons of this class should be returned and classified as relief labourers, or whether their pay should be chargeable to the works establishment, or to some appropriate works sub-head, and the practice has differed even within the same province. We consider that persons of this class may fairly be described as relief-workers if they receive a uniform wage, varying with the price of grain, and exceeding the wage allowed for class I, whether expressed in terms of a grain-equivalent or cash, by a constant difference. They may then all be placed in a single and separate class, to be called the Special class, and will be included in the returns as relief workers. But no persons who are paid either a monthly wage or a daily wage, differing from the wage for any of the prescribed classes, should be returned as relief workers. If, however, they are paid by the piece and not a daily wage, there will be no objection to including them with other piece-workers as relief labourers.

Relief labourers in receipt of a daily wage irrespective of task.

441. The Government of Bengal has pointed out that many relief labourers who may be placed in either of the prescribed classes are paid the daily wage of their class irrespective of task, or are given a task of a special character which cannot be shown in the periodical returns. An example of the former is a water-carrier, who might, perhaps, be classed as a digger, while, as an instance of the latter, we may take a gang of earth-work dressers, whose task is expressed in superficial feet, but cannot be shown in the earth-work progress, which is expressed in cubic feet. It is pointed out that in order to effectively scrutinize the outturn of work by the regular earth-work gangs and the numbers of those paid irrespective of task (which require very careful watching), it is of great importance that all who are not employed on earth-work as diggers or carriers or who are not in the special class should be separately classed as labourers in receipt of a daily wage irrespective of task. This is, however, more a question of relief works accounts than of classification. We consider it essential that the class should invariably and primarily connote the wage, all persons entitled to the same wage being placed in the same class. It is only in this way that the total of a wage bill can be effectively or readily compared with the amounts normally due to the workers employed according to the wage scale in force. Such a comparison we deem of great importance for the purpose both of checking the wage bills and of detecting at a glance the extent to which fining has been resorted to, though it is one which it has hitherto been practically impossible to make in any province, under the system of

classification and accounts in force. But it will always be possible to devise the subsidiary accounts on works so as to show separately the numbers who are employed irrespective of task, and this will involve simpler forms of accounts and derived returns than would be required when persons drawing the same pay are placed in more than one main class. At any rate, for our present purpose, it is sufficient to regard all persons entitled to the same wage as forming a single class, whatever sub-divisions of classes may be considered necessary in order to exhibit the outturn of work in the most convenient form.

Dependants and nominally tasked workers.

442. We have now considered the classification of all *workers* properly so called. There will, however, be on all works a few adult dependants of the workers who are absolutely unable to perform any task at all, but who cannot be left behind in the villages, and a considerable number of non-working children. In addition to these incapable dependants a few adults will present themselves at the works who are really incapable of performing the moderate task expected from labourers in class II, and who are given purely nominal work which cannot be enforced, and is merely intended to provide them with a little healthy employment, and to keep them from wandering These people cannot always be turned away from the works or sent to a poor-house though they may not be actual dependants, but nominal employment has to be given to them, and as long as they behave themselves their presence must be tolerated, and they may be paid the minimum wage, which is that prescribed for dependants or persons entitled to gratuitous relief. They may, therefore, be classed with other adult dependants, the amounts paid to them being regarded, like the allowance to true dependants, as gratuitous relief and distinct from the wages paid to workers. It is not intended that all persons who cannot be employed in the carrier gangs should be relegated to this class. There may be many who can be employed on light and useful work irrespective of task, who may fairly and properly be placed in class II, and fined down to the minimum wage if they idle. But there will remain a few whose task will be really and purely nominal, and for whom nothing but the minimum wage would ever be appropriate, persons who would in the ordinary course be classed as dependants if they belonged to any of the workers. When these cannot be placed on village relief or sent to a poor-house they should be given nominal employment and the minimum wage, and may be conveniently included in the same class as adult dependants.

The only other class will be that of non-working children. This will include all children under 8 years of age, and a few over that age who, on account either of debility or unwillingness to work, may not be admitted into the class of working children.

Abolition of sexual sub-divisions within the same class.

443. There are two points in which the system of classification now proposed differs from that which has been followed in the North-Western Provinces, *viz.*, the abolition of sexual sub-divisions within the same class, and the inclusion in class II of all boys and girls between the ages of 12 and 16. As regards the first point the Famine Commissioners recommended that separate rates should be prescribed suitable for the various classes of persons as well as for different ages and sexes, and stated also that a female requires a little less than a male. Sexual sub-divisions for each class have accordingly been provided for in the existing codes. But the broader classification now proposed is in itself for all practical purposes a sexual classification.

The special class and class I will consist almost entirely of males, while class II will consist mainly of females and of boys between 16 and 12 years of age, the only adult males in this class being the few feeble men who are ineligible for class I. It may be that on physiological grounds a woman requires, *cæteris paribus*, a little less food than a man, but under no system of classification can other things be so equal as to render it necessary to observe such a minute distinction, and it may be added that under the system of *pice* payments, to be presently referred to, the difference is so small that it is often practically impossible to give effect to it. In the North-Western Provinces the wage of a man and woman in the carrier class were identical on the 10-seer wage basis. On the 12-seer basis there was a difference according to the ready reckoner of one pice in favour of the male, but on the introduction of the intermediate system it was found necessary to assimilate the wage, even on this basis, and to pay all carriers the same wage, irrespective of sex, the male wage being levelled down to that of the female. Practically, therefore, the male and female carrier received the same wage on both the 10-seer and the 12-seer basis, or almost generally throughout the province. It has been urged that among the natives there are sentimental objections to a man and woman receiving the same wage. This is perhaps the case, and it has been reported that in Ganjam some classes of women came to the works without their male relations, for the men thought it beneath them to work for a wage which is virtually the same as that for a woman. The fact, however, constitutes the strongest argument in favour of our proposal. In Madras the man and woman were placed in the same class, receiving a grain wage of 38 and 36 ounces respectively, and the difference between the wage was regarded by the men as virtually *nil*. The code system of classification maintains a distinction in letter but not in spirit. Under it the wage of a woman in class A is equal to that of a male in class B. If husband and wife are put in the same class the difference is too small to be appreciable, and if the gangs consist of mixed classes many of the women may actually be drawing more than the men. If, however, the men and women of a family are put into different classes the required difference between their wages is secured, and sexual distinctions within the classes are unnecessary. Under our proposal there will be not merely a great simplification in accounts but also a real and appreciable difference between the wage of an able-bodied man and that of the women of his family, and we do not consider it an objection that the few feeble or inexpert men that may drop into the carrier class should not be allowed a higher wage than the other members of this class.

Juvenile adults.

444. As regards the proposal to include all boys and girls over the age of 12 in class II, we observe that the Famine Commissioners in paragragh 184 of their report considered that a child below 12 years of age required about half the allowance of an adult male, but made no recommendation regarding children above the age of 12. In sections 127 and 128 of the provisional famine code children were to be allowed $\frac{3}{4}$, $\frac{1}{2}$ or $\frac{1}{4}$ rations according to requirement, section 128 defining children as those "not being infants, below 14." The Resolution of August 1893 prescribes that the wages of children should not be less than one-quarter or more than three-quarters of the wages allowed for adult males, and the higher limit may be taken as applicable to children over 12, in view of the Famine Commissioners' recommendation that half rations should be given to children under 12. We shall

presently propose that the wage for class II shall be three-quarters of that for class I. Section 123 of the Madras code declares that the grain rations prescribed for adults shall be applicable to children above 12 years of age, and this is the practice that has been followed in that province. Section 73 of the Bombay code provides that boys and girls above 12 years of age may be classed as adult males and females respectively in class C, and the wage table allows 30 ounces as a maximum for the grain wage of working children, which is also the grain wage for a female in class C. This, too, is allowed as a maximum wage for children in all other codes, and it is only in the provinces which have adopted the classification and wage table appended to the North-Western Provinces Resolution No. 18-P. W., dated 5th December 1896, that the maximum allowance is reduced to 20 ounces. All prescription is therefore in favour of giving children over 12 at least the same wage as females in class C, and this will be the result of our proposal to include them in class II. It may be said that children of this age are unable to do the task of a full-grown woman. It has, however, already been remarked that in practice the carriers will seldom be very fully tasked, and it may be added that in Madras, where great care has been taken to proportion tasks to the capacities of different ages and sexes, girls between 12 and 16 have always been given the same task as full-grown women, and boys of the same age have been given either the same task or one higher by fifty per cent., according to their appearance. But even if it be found necessary to task children of this age more lightly than the adult members of the class, so that, for instance, three children should be regarded as equivalent to two carrier units, we are still of opinion that there is no cause for departing from the prescriptions of the existing codes, and that on physiological grounds children over 12 should be allowed the same ration as adults in our proposed class II, even if not required to perform quite the same task.

Summary of proposed classification.

445. Our proposed classification may now be summarised as follows :—

Workers—

Special class—to include all persons in responsible positions or with special qualifications, who are paid a uniform wage exceeding by a constant difference that allowed to workers in class I.

Class I.—*Diggers.*—To include all able-bodied labourers who are capable of performing a fair digger's task, the task to be not less than 75 per cent. of that usually required from able-bodied labourers on ordinary works, or on tasks other than digging not less than 50 per cent. in excess of that required from labourers in class II.

Class II.—*Carriers.*—To include all adult labourers not included in the special or diggers' class, or in class IV, and all working children over 12 years of age.

Class III.—To include all working children below 12 and over 8 years of age who are capable of carrying a fairly-sized basket of earth.

Gratuitously relieved.—

Class IV.—*Gratuitously relieved.*—To include all adult dependants of workers who are unable to work, and other feeble persons who may be given purely nominal employment on the works, so that they may qualify for the dependants' or minimum wage.

It will generally be convenient to sub-divide this class in the returns into two sub-classes (1) *nominally worked*, and (2) *not worked*. Non-worked adults who are not actually dependants of workers in class I or class II should be sent to gratuitous relief at their homes or to a poor-house (if they have no settled home) on the first opportunity; or else transferred to the "nominally worked" sub-class.

Class V.—*Non-working children.*—To include all children of workers under eight years of age, and any above that age who may for sufficient reason not be admitted as working children.

Wages to relief workers in different provinces.

446. Assuming that relief labourers and their dependants will in future be classified on the system that has now been proposed, we have next to consider the question of the wage appropriate to each class. This is a question of great difficulty. Although the provincial famine codes prescribe a uniform system of classification and grain wage for each class, we find that in practice the divergences from the standard thus set up have been very great. To take the case of women workers alone, who may be said to average 50 per cent. of the whole number, it has been shown that the nominal grain wage for all women workers in the three provinces which adopted the rules of the North-Western Provinces has been 26 ounces only, though some in the Central Provinces received the full B wage of 34 ounces. This was the nominal wage, but owing to the operation of the pice conversion rule and the difference generally maintained between the wage basis rate and the market rate, the cash wage actually paid was in the North-Western Provinces and Bengal seldom sufficient to purchase more than 22 or 24 ounces. In the case of children both the nominal grain wage and the actual cash wage were far below the amount contemplated in the code. Even in the case of able bodied diggers who were nominally allowed the code wage for class B (38 ounces) the actual cash wage was, as has been shown, often insufficient to purchase more than 30 ounces. And yet it is maintained by these two local Governments and by many experienced witnesses that the scale of wages adopted was found to be sufficiently liberal, that a higher wage would have attracted many to the works who were not really in need of assistance, and might have interfered with the supply of labour to private employers. On the other hand, in Madras all the women were for some time given a B wage of 36 ounces; all children between 12 and 16 received the same high wage, and throughout the period of distress a very small percentage were put on a lower wage than this. And this was not a nominal but an actual wage, as the greatest care was taken to prevent any appreciable difference between the wage basis rate and the market rate, not in the large towns, but in the villages close to the works. Nor was the grain wage always limited to the prescribed grain equivalent even for the B class. In some cases the alternative method of calculation, by evaluating all the component items of the prescribed ration, with an added allowance for fuel, was adopted whenever this was found to give a higher wage than the grain-equivalent method. And yet the general opinion of the Madras witnesses is to the effect that the wage given was by no means excessive, while it is maintained by some, and especially by the Sanitary Commissioner of Madras, that a lower wage could not have been introduced without endangering the health of the labourers and even incurring a great loss of human life. In Bombay and the Punjab, where the code provisions were more closely adhered to, the tendency in practice has been towards a less, rather than

a more, liberal scale than contemplated in the codes, and in Bombay the majority of the witnesses appear to be in favour of a wage scale only a little more liberal than that of the North-Western Provinces.

Possibility of a standard ration wage to be applicable in all provinces.

447. The question which we have had to consider is whether there is such a material difference in the conditions in the different provinces of India as to render it necessary to prescribe different wage scales for different provinces, or whether it will be possible to lay down a standard ration wage which, with some permissible limits of deviation, may be generally adopted in future all over the country. As to this point we think that in dealing with the different races and classes of India, the rations absolutely required to maintain health and strength must vary a little in proportion to differences in average weight, and may also vary to some extent in accordance with differences in habits of diet. For example, it seems probable that in tracts where the labourers are in the habit of eating only one full or cooked meal in the day they may be able to do with less food than where two full cooked meals is the rule. To take another instance, the labourers and artizans of most parts of the Punjab are heavier men than the same classes in the North-Western Provinces and Oudh and in Behar, and are also, we believe, habituated to a larger and freer scale of diet. Again, it seems probable that where, as in some of the Madras and Bombay districts, the proportion of petty land-holders and tenants who come on relief in severe scarcities is large, the average dietary to which the relief workers are habituated will be on a more liberal scale than where the classes which come on relief are almost entirely confined to the poorer labourers and artizans of the towns and villages. Nevertheless we are of opinion that the differences between the dietary requirements of famine relief in the various provinces are not great enough to make different standards of ration and wage necessary. In view of the limits of deviation which we shall presently indicate as permissible, we think that our scale of rations and of wages derived therefrom will do as the standard for all parts of India, with the possible exception of Burma. In respect to the standard to be adopted we accept without hesitation as sufficient and not more than sufficient the full and minimum rations laid down by the Government of India in the provisional code, which were based upon the suggestions of the Famine Commissioners, and were the result of much practical Indian experience and expert inquiry. The only alteration we propose is a very small addition to the extra items of the minimum ration.

Possible exception in the case of Burma.

448. As regards Burma, it has been shown elsewhere in this report that the scale of wages in that province has been much more liberal than in other parts of India, and that it includes a fixed cash allowance or margin to labourers of classes A and B, over and above the cash value of the grain rations, which are those allowed in the Indian codes, and prescribed by the resolution of August 1893. We have had before us the proceedings of a Committee of Famine officers appointed to consider the revision of the Burma code in the light of the experience gained during the late famine in which it is recommended that the workers should be divided into two classes I and II, each with several sub-divisions, corresponding to classes B and D of the present code, and entitled to the prescribed grain wages of those classes. The Committee proposed, however, that the extra cash margin allowed by section 99 of the present code should be given to workers in the new class I,

but only at the discretion of the Commissioner, in cases where it may be considered necessary owing to the distance from their homes, difficulty in obtaining firewood, or other reasons. We think it probable that the proposal which we have made in paragraph 459 *infra* would suffice to meet any conditions under which the standard wage scale now proposed by us would be insufficient, and that it is on principle preferable to an extra cash allowance rigidly fixed and bearing no relation to the price of grain, and confined to a particular class. But we are not prepared to recommend that Burma should be required to accept this proposal, or the classification without reference to sex which we have suggested. We recognise that however high the scale of wages may have been in Burma, the value of the work done has borne a higher proportion to the cost of relief there than in any other province, and that all conditions differ so widely there from those obtaining in India proper that there may be special reasons for a classification and wage scale in that province differing from that which we consider more appropriate elsewhere. We are the less inclined to recommend absolute uniformity in this respect as we have not had an opportunity of visiting Burma. If the recommendations made in this section are accepted by the Government of India as far as other provinces are concerned, the Government of Burma will no doubt be prepared to consider them on their merits, and will perhaps be willing to adopt them, but we do not recommend that their adoption in that province should be obligatory.

Explanation of differences between the wages paid in Madras and the North-Western Provinces.

449. Before dealing in detail with the standard rations and wages which we propose, it seems desirable to consider whether any explanation can be given of certain great differences of rates of wages which have prevailed in the recent famine. The difference between the extremes found in Madras and in the North-Western Provinces in the matter of wages is primarily and principally a difference in classification. In Madras it was held that practically all relief labourers belonged to class B, whereas in the North-Western Provinces only able-bodied diggers were put into this class, all other labourers being relegated to class D. The Government of the latter province appears to consider, however, that it placed its diggers and carriers in classes A and C, although the wages allowed are those prescribed for classes B and D in the existing codes. It is said that the margin allowed under the method of grain equivalents is excessive, and that if the value of the prescribed rations be calculated on the basis of the cost of the component items, the grain wages paid during the late famine to the diggers and carriers which it is proposed to prescribe for these classes in the revised code, are really the wages for classes A and C. We do not propose to consider these arguments and calculations here, but are of opinion that the practice of placing diggers and carriers in classes A and C, respectively, of the existing codes, is closely in accordance with the principles laid down by the Famine Commissioners and embodied in the provisional code, for reasons which will now be stated.

Diggers and carriers belong naturally to classes A and C respectively of the present codes.

450. Section 132 of the provisional code, when read with sections 71 and 72, provides, in accordance with the recommendations of the Famine Commissioners, that on professional agency works able-bodied persons accustomed to labour of the kind required at such works, that is professional labourers, or class A of the present codes, should be allowed to earn something in excess of the

full wage. The Government of India in their resolution of August 1893 have demurred to this, and under the code system of task-work have limited the earnings of this class to the full wage on the performance of a full task, that is, "the amount of work usually performed by able-bodied labourers on ordinary works." Section 133 of the provisional code provides that labourers not accustomed to labour of the kind required at professional agency works, *i.e.*, non-professional labourers, who are nevertheless sufficiently able-bodied and accustomed to labour as to be paid by results on civil agency works (class B of the present codes), shall be allowed to earn a wage as nearly as possible equal to the full wage of the code. The Government of India, in their resolution of August 1893, while prescribing a lighter task for persons of this class, have also reduced their wage below the "full" wage, which is allowed only to labourers of class A. As before pointed out, this principle of reducing the wage proportionally with the reduction of task renders classification unnecessary, and is opposed to the intention of paragraph 131 of the Famine Commissioners' report, under which it was contemplated that a full wage should be given to any labourer on the performance of 75 per cent. of a full ordinary task, whereas in the resolution of August 1893 a short wage is prescribed for the performance of 85 or 90 per cent. of a full task. It appears to us that if labourers of class A are not to be permitted to earn more than the full wage, it is unadvisable to require from them more than 75 per cent. of the full task, and, on the other hand, all labourers of class B who do 75 per cent. of a full task should be entitled to a full wage. The Famine Commissioners' reasons for fixing the task of relief workers at not more than 75 per cent. of that commonly performed by labourers in ordinary times are in our opinion still good. A moderate task is of great importance in facilitating the formation of gangs without the breaking up of families and village parties, in diminishing the troublesome and dangerous necessity of fining for short work, in giving the relief workers plenty of spare time for the necessary requirements of life, such as getting their wages, buying grain, grinding, cleaning, and cooking it, collecting fuel, going and coming to and from their villages, and looking after their children. For these reasons we propose to revert in respect to full task entitling to full wage to the Famine Commissioners' principles, and if this is done, classes A and B of the present codes may properly be amalgamated into our proposed class I, and able-bodied labourers capable of performing not less than 75 per cent. of a full task should all be included in it, whether professional or not, and should be entitled to the full wage. Thus all persons of the digger class should fall under class A of the present codes. As regards all labourers other than those capable of earning the full wage under a system of payment by results, *i.e.*, all who are incapable of performing a task equal to 75 per cent. of a full task as already defined, section 134 of the provisional code provides that their wages shall in no case be greater than 75 per cent. of the full wage or less than the minimum. The higher limit is practically the class C wage of the codes, and the lower that of class D. Able-bodied labourers unable to do 75 per cent. of a full task may, therefore, rightly be put into class C, under the principles laid down in the provisional code.

High wage in Madras principally due to the system of classification adopted.

451. From this point of view the Madras method of classification appears to have been unduly lenient, and the wages paid excessive, for it may safely be said that only a small proportion of those who were placed in class B were able to perform a task not less than 75 per cent. of that usually performed by

able-bodied labourers on ordinary works. Apart, however, from the excess due to this cause, the grain wage for females in class B was, under the Madras code, 2 ounces higher than in other provinces, as shown in paragraph 436, while children over 12 years of age were classed as adults.

Principles on which it is proposed to fix a wage scale.

452. In accordance with the foregoing considerations we recommend that our new class I should be entitled to the full wage for an adult man, while the wage for class II will be 75 per cent. of this. Working children or class III should be paid about half the wage for class II. Adult dependants or class IV should receive the minimum wage, and non-working children about half of this allowance. It is on these principles that we now propose to fix the wage for each class. As already stated we propose to accept the rations of the provisional code as a basis. We consider that the plan of stating the wage in terms of a grain equivalent recommended in the Government of India Resolution of August 1893 is convenient, and should be prescribed for universal adoption, but we think that the margin allowed under the rule fixing the grain equivalent at $1\frac{3}{4}$ times the weight of the grain item of the ration is in excess of requirements. We would prefer to keep the margin as small as possible in fixing a standard, and to allow the local authorities to fix a "circumstantial margin" within the limits of deviation from the standard scale which we shall presently indicate as permissible. The grain equivalents for the full and minimum rations which we propose are based on a computation of the cost of the grain and other items of the rations, the price of grain being taken at 20 lbs. to the rupee which may be regarded as the general famine rate. We have allowed a margin of 5 per cent. This margin we propose to allow "to avoid the risk of the wage being insufficient to purchase the full ration of food." This was the reason for a margin given by the Famine Commissioners and it appears to us to be still sound. The margin is meant to cover not the ordinary fluctuations of current prices but the difference which often exists between bazar rates and the price which the relief worker has actually to pay. The rates for other items used in the calculations are those reported as obtaining in the North-Western Provinces. The rate for pulse is said to have generally risen and fallen *pari passu* with that for grain during the famine, while the rates for the remaining items were practically constant.

Grain-value of the full and minimum wage.

453. The grain values of the full and minimum rations are therefore calculated as follow:—

Full wage—

	Annas.
24 oz. of the common grain used in the country or cleaned rice at 20 lbs. ... ... =	1·2
4 oz. pulse at 20 lbs. ... ... =	·2
½ oz. salt at 20 lbs. ... ... =	·025
1 oz. ghi or oil at 3 lbs. ... ... =	·333
1 oz. condiment and vegetables at 8 lbs. ... ... =	·125
	1·883
Add—5 per cent. as margin	·094
Total wage in annas ...	1·977

Corresponding grain equivalent at 20 lbs. to the rupee equal 39·54 ounces or say, 40 ounces.

As regards the minimum wage, the ration prescribed in section 128 of the provisional code allows 16 ounces of flour for a man and 14 ounces for a woman. For reasons already given we prefer to make no distinction of sexes, especially in the class that will be entitled to this wage, and we propose to take the grain item therefore at the average of 15 ounces. We consider, however, that the weight of the salt and ghi or oil items may with advantage be increased from $\frac{1}{3}$ to $\frac{1}{2}$ of an ounce, thus raising the total of the items other than grain and pulse to a full ounce and-a-half. In actual practice the relief workers seem to consume more vegetables and less oil or ghi than is contemplated in the rations. The allowance for condiments and vegetables is no doubt very low in both rations, but taking it with those proposed for salt and ghi or oil, we believe the sum total is practically sufficient. With these modifications we may calculate as follows :—

Minimum wage—

	Annas.
15 oz. of the common grain used in the country at 20 lbs. ...	= 0·75
2 oz. pulse at 20 lbs.	= 0·10
½ oz. salt at 20 lbs.	= 0·025
½ oz. ghi or oil at 3 lbs.	= 0·167
½ oz. condiment and vegetables at 8 lbs.	= 0·062
	1·104
Add—5 per cent. for margin	·055
Total wage in annas ...	1·159

Corresponding grain equivalent at 20 lbs. equal 23·18 ounces or say, 24 ounces.

Conversion of grain into flour.

454. We have followed the system of the Resolution of August 1893 in using grain instead of flour in the rations, and in treating pulse as of the same price as the grain. By "grain" we mean cleaned grain, as sold in retail shops fit to be ground or cooked unground. Except where ragi is the staple grain on which the calculations are based, the cost and loss in conversion will be small, as the grinding is done by the women, and there is no waste, the bran being consumed as well as the flour. It will be seen that in order to bring the grain equivalent to an even number of ounces, the actual margins will be a little over 6 per cent. in the case of the full, and very nearly 9 per cent. in the case of the minimum ration, while the conversion of ounces into *chattaks*, on the conventional assumption that one *chattak* equals two ounces, involves a further addition to the margin in favour of the worker of about $2\frac{1}{2}$ per cent. in each case. These margins will, in our opinion, amply cover the loss in conversion to flour, and also the loss generally involved by treating pulse as at the same price as the staple grain. In respect to the special case of ragi, which has been sometimes used as the staple grain in parts of Southern India, there is evidence that it is seldom eaten as the sole grain, even by the poorest. We think that where ragi happens to be the cheapest grain in common use in the market it should not be regarded by itself as the staple grain ; a mixed basis of ragi and cholum or other grain might be used, the proportion of ragi not being more than two-thirds or less than one-third.

Proposed grain wages for all classes.

455. Our grain equivalents for the full and minimum rations will thus be 40 and 24 ounces, respectively, and the former will be the grain wage of our class I, while the latter will be the minimum grain wage for all workers and the allowance

for gratuitously relieved adults, or class IV. The corresponding full and minimum grain-equivalents of the existing codes are 42 and 28 ounces for males and 38 and 26 ounces for females, but we consider that the margin allowed by the old conversion rule was higher than necessary, and under it the grain-equivalents for females were overcalculated, as shown above in paragraph 436. The grain wage for class II will be 30 ounces or three-quarters of the full wage. Working children below the age of 12 should receive about half of this, and we propose to allow 16 ounces. We consider, however, that working children should not be subject to fine. For non-working children under 8 years of age we propose an allowance of 10 ounces. In the case of children over this age, who are not admitted as workers or may receive gratuitous relief in villages, we consider that this allowance may be increased to 14 ounces. We recommend elsewhere, however, that as a general rule, and whenever possible, non-working children should be relieved in kitchens, in which case it may be left to the local authorities to prescribe the component items of the food to be given, and the average weight that should be allowed for children under and over 8 years of age respectively, so that their grain equivalents may agree as nearly as may be with those here proposed.

Wage scale in Indian measure.

456. The provisional grain wage which we propose for all classes, except the *special*, will therefore be as follows, in terms of the usual Indian measure, the chattak, which is equal to one-sixteenth of the seer, or $\frac{1}{640}$th of the maund of $82\frac{2}{7}$ lbs., so that 1 chattak = 2·051 ounces nearly.

	Chattaks.
Class I.—Diggers	20
,, II.—Carriers	15
,, III.—Working children	8
,, IV.—{ Adult dependants / Minimum wage }	12
,, V.—Non-working children—	
(i) Over 8 years	7
(ii) Under 8 years	5

As regards nursing mothers we would allow them the wage of their class, which will usually be 15 chattaks, along with the non-working child's allowance of 5 chattaks. In other words a nursing mother will receive the full wage of 20 chattaks for herself and child. It is unnecessary to specify a grain wage for the *special* class. When such a class is considered necessary the wage may exceed that for class I by a constant difference, that will be specified by the local Government. The number in this class will always be small, and should not exceed a certain percentage of the number of other workers, which will depend upon circumstances and can be fixed by the Superintending Engineer or other local officers, as may be prescribed in the provin cial code.

The grain wages thus suggested are for works conducted under the code system of task-work, on which the workers never receive less than the prescribed minimum wage, except in cases of contumacy. Where payment is made strictly by results, and no minimum wage is recognised, we are of opinion that it may be left to the discretion of local Governments to authorise in their provincial codes the payment of wages exceeding these limits by about 25 per cent. on the performance of a proportionately enhanced task.

457. In applying these grain-equivalents we recommend that daily wages or allowances when paid in cash should always be fixed in terms of full pice, whether payments be made daily or not. The system of full pice payments was proposed in the rules issued with the North-Western Provinces Resolution No. 18-P.-W., dated the 5th December 1896, and was adopted by the other provinces in which those rules were followed. The practice did not, however, originate with those rules, but was in force long before their issue in the Behar and North Bengal relief operations of 1891-92, and is prescribed in section 103 of the Bengal code, in which certain pice wages are proposed to correspond with the full, three-quarters, and minimum wage, and in which it is directed that "the wage should never be fixed in pies, a coin not commonly used in the villages." In the Punjab and also in Burma a system of full pice payments was independently evolved during the course of the late relief operations. It was only in Bombay and Madras that wages were throughout calculated and paid in pies, and this practice rendered daily payments impossible, whereas daily payments were the general, but not universal, practice when the wages were in full pice. With daily payments a full pice daily wage is obligatory. In provinces in which payments have not been made daily, the practice is thought to involve unnecessary labour for the staff and to interfere unduly with the progress of the work, but we are impressed with the fact that wherever it has been in force, it has been approved with absolute unanimity by all the officers, both Civil and Public Works, concerned, both on account of its popularity with the workers, and the security that it provides against fraud. We do not, however, wish to recommend that daily payments should be made universally obligatory. We are content that this should be left to the discretion of local Governments, but whether payments are made daily or not, we consider that the daily wage should be invariably fixed in full pice. We advocate this not only as facilitating the practice of daily payments, but also on independent grounds. The system of a full pice wage, apart from the simplicity which it introduces into the accounts, renders it unnecessary to alter the wage scale with every petty variation in the price of grain, and it enables every worker to know exactly what his daily wage should be throughout a long period. We are aware that frequent variations have been avoided in some provinces by what is known as the 10 per cent. rule, under which no alteration is made in the wage basis for variations of less than 10 per cent. in the price of grain, but we consider such a rule is open to objection on principle, and that it will be unnecessary if the wage is always calculated and paid in full pice. Nor do we consider it a disadvantage that under the rule the fine for a day cannot be less than one pice, and must always be a full number of pice. But in recommending this system of full pice wages we must take exception to the North-Western Provinces pice-conversion rule, which is to the effect that if the exact money cost of the grain equivalent exceeds a pice-multiple by two pies or more the next higher pice-multiple is to be paid, but that if the excess is less than two pies then the pice-multiple below shall be paid. The effect of this rule theoretically is that in nearly two out of three of all cases in which the true wage exceeds a pice-multiple the advantage is in favour of Government and against the worker. In actual practice under the wage bases which generally obtained, the advantage in favour of Government appears to have been greater than this, and many workers received nearly 2 pies less than the true wage due to them. We consider, therefore, that if a full pice wage is adopted,

Cash daily wage to be calculated in full pice.

the rule should be that when the true and exact wage exceeds a pice-multiple by $1\frac{1}{2}$ pies exactly or more, the next higher pice-multiple should be given, and in other cases the pice-multiple that is exceeded should be taken. In an equitable give-and-take rule the only really doubtful case is when the excess, as worked out to three places of decimals of an anna, is $1\frac{1}{2}$ pies exactly, and in such cases we propose that the benefit of the doubt should be given to the worker. Under such a rule the difference between the daily wage in pice and the wage he would receive in pies will never exceed one pie either way.

At the end of this section will be found a full pice wage table which has been calculated on the principle recommended above for the grain equivalents which we have provisionally proposed, and for grain rates varying from 12 to 32 lbs. to the rupee. It will be seen that under it the same wage scale will often obtain through a considerable range of prices, and that the differences between the wages of classes I, II and IV are practically constant throughout.

Necessity for deviations from the standard wage-scale.

458. In saying that we considered that only one standard of ration and wage need be laid down for all India, we indicated that we proposed to guard this by a rule allowing the local Governments a certain power of deviation. We think it necessary that within certain limits the local Governments should have a discretion equal to their responsibility in this matter which so seriously affects the lives and health of the people, and the finances of the State. We consider that the principle recommended by the Famine Commission that the rates of wage should be based on approved scales of rations, and should closely follow the rise and fall of prices, is a most important one, which should not be abandoned or deviated from at all without due reason. We are not sure that in the recent famine too free a power of deviating from it has not been assumed in some provinces. At the same time we recognise that conditions vary greatly in different provinces, and even in different parts of the same province, and at different times and seasons. A particular wage which may be materially inadequate at one time and place, may be unnecessarily liberal at another. In some places and at some times the people have natural resources which are wanting at other places and times, and it may be legitimate, and perhaps necessary, to take the existence or absence of these into account. For examples we may mention the abundance or absence of *mahua* or other wild fruit and vegetables, of fuel which can be picked up near the works, or of cheap meat. Again, where the standard famine wage is much below or in excess of the prevailing market wage of the country, this may indicate that some variation is advisable and legitimate. When the circumstances of life on relief works are extremely trying as in the rains in some places, and in the hot winds in others, it may be judicious to allow a somewhat higher wage than is ordinarily necessary. The same argument applies when it is known that the physical condition of a large proportion of the workers is below par. In such a case a wage may be not enough to generally restore or even maintain strength, though if the same people had not fallen into a reduced condition it might have been quite sufficient. On the other hand, at the end of a famine, and occasionally at other times when a demand for labour has arisen and the able-bodied relief workers clearly show themselves inclined to remain on the works without necessity, it may be legitimate and advisable to make the works less

attractive by some moderate reduction of the standard rates and wages in order to induce people to leave.

There is also one case in which we think a more or less general deviation from the ordinary wage standard may be contemplated, and that is when people are employed on small works in or closely adjoining their own villages. Such works are very popular and are apt to attract almost all the available labour in the village. Moreover, the people in their own homes have ways and means of making a wage go further than it will at a distance. We think that in this case local Governments would generally find it safe to direct that all persons of class I as defined above should be placed in class II, or as an intermediate measure that all such persons should receive a wage less by one pice than the prescribed wage of their class. There will usually be no difficulty in getting a sufficient number of diggers in such cases, and when payment is not made by results the proposal is entirely in accordance with section 134 of the provisional code. We propose this, however, only in the case of small village works, in the execution of which the villagers themselves are the principal or only persons interested, and not in the case of large or public works that may be in progress in the immediate vicinity of a village. The reasons for the distinction are obvious. It is no doubt true that people will attend a work close to their village for a smaller wage than will attract them to a distance, and that they will often leave the work as the distance increases. But in the case of large works it would hardly be practicable to introduce different wage scales or systems of classification varying with the distances from which people might come to the works, nor do we think it objectionable that people coming to them when in the vicinity of their villages should be allowed the benefit of the classification and wage scale generally in force on such works. Although they may have petty resources of their own which may render it possible for them not to follow the works as the distance from the village increases, those resources may not in themselves be sufficient to maintain them throughout the whole period of distress, and if they are willing to husband them by doing a fair day's work for a relief wage when the work happens to be brought near to their doors, there is no reason why they should be discouraged from doing so.

Limit of permissible deviation from the standard wage-scale.

459. To cover all possible reasons for deviation, and to give the local Governments the degree of free discretion in the matter which we think ought to be entrusted to them, we propose that they should have power within the limit mentioned below to suspend the rule by which the standard rates and wages follow the rise and fall of prices. They would do this by fixing from time to time as the wage basis for particular works or groups of works a grain rate somewhat higher or lower than that actually obtaining at the time. This discretion will necessarily be exercised with reference to a pice wage table or ready-reckoner in some such form as that given at the end of this section. The local Government should, we think, be allowed to depute this power formally to officers not below the rank of Famine Commissioner or Commissioner of a Division; such officers to be bound to immediately report each exercise of the power. We think this fixing of a grain rate differing from the actual should *never* be done except by written orders to be officially recorded, and that the reasons should always be stated in the orders. Such orders would, of course, have to be reconsidered with every subsequent change of prices which would ordinarily require a change of wage by the pice table.

The maximum limit of deviation which we would propose is 25 per cent. in either direction. Thus when the actual rate is 20 lbs. to the rupee, the wage basis to be prescribed should never be less than 15 lbs. or more than 25 lbs. to the rupee. We believe that the limits of deviation thus proposed will be sufficient to give all the margin which is necessary, and that it is sufficiently wide to render our provisional grain equivalents appropriate at all times in all provinces. It is not however necessary that they should be regarded as absolute: whenever circumstances require it, local Governments should be permitted to propose revised grain equivalents and corresponding pice wage tables of their own, but we think that they should be brought into force only with the sanction of the Government of India.

General remarks on proposed classification and wage-scale.

460. The recommendations which we have now made in regard to classification and wages appear to us to be in close accordance with the original proposals of the Famine Commissioners and of the provisional code. We think that in the course of the long correspondence that attended the evolution of the present codes, those proposals have been to a certain extent departed from, sometimes in the direction of greater liberality, and sometimes in the opposite direction. In some respects we have reverted in the direction of the original proposals. On the whole our recommendations in respect to wages and classification will probably be thought somewhat less liberal than the prescriptions of the present codes. On a review of all the evidence we are confident that they are sufficient, but do not believe that they could safely be put lower. We consider that any more liberal system than that now proposed would go beyond the necessities of the case, and might entail a large unnecessary expenditure. An unnecessarily high wage is of course to be most carefully avoided for other obvious reasons. It would be likely to attract to the works some people not really destitute who could and would otherwise manage to support themselves on their own resources, to keep labourers on the works when other employment was open to them, and to render it difficult for private employers to obtain all the labour that they may require. It must also be remembered that there are thousands who do not attend relief works who support themselves during periods of distress on means that would not compare favourably with the wages that can be earned by relief labourers. After considering all the evidence that has been placed before us, we think the maximum wages which would have been allowable under our proposals would never have been found inadequate to the requirements of the situation in any part of the country affected by the recent famine.

On the other hand, it may be urged that the adoption during the late famine of the full standard scale of wages now recommended would have entailed an expenditure on relief works, particularly in the North-Western Provinces, considerably in excess of that actually incurred, and that such a scale cannot be justified unless it can be proved that the wages paid in those provinces were inadequate for the proper relief of distress and saving of human life. This is as difficult to prove as to disprove. Distress and a rise in the rate of mortality must occur to a considerable extent in all famines, and the causes are so numerous, complicated, and obscure, that in any province in which relief has been promptly and extensively administered, it is very difficult to say how far a low scale of wages may or may not have affected the issue, or

whether an increase in expenditure under this head would have been justified by an improvement in results. It is, for instance, obvious that promptitude in opening relief works and distributing village relief at the times when, and in the places where, such aid is most required may be more effective in relieving distress and reducing mortality than a more liberal scale of wages and allowances not so serviceably put into the hands of the people. We do not consider it necessary to question the general success of the famine administration in the North-Western Provinces in order to justify our proposals. This success does not affect our opinion that at certain times and stages the wage scale there in force was lower than with all the evidence before us we can recommend as a standard for future guidance even in the provinces in which it has been applied.

(vi).—The code system of task-work and systems of payment by results, tasking, rest-day allowances, relief works accounts, etc.

Payment by results.

461. Under the preceding head of this section we have considered the classification and wage scale of daily labourers employed on what is generally called the code system of task-work, which involves the payment to each worker, however short may be the task performed, of a minimum wage, combined with relief to all the dependants that may accompany him to the work, and the Sunday or rest-day allowance. We believe that when distress is acute this system is, in spite of the objections which have been frequently urged against it, the only one that can be safely adopted, and when there is no doubt that acute distress is impending it will probably be best to use it from the beginning. It combines better than any other system with the free administration of gratuitous relief which is necessary at such a crisis. With good management and a population not specially lazy or apathetic, it ought not to fail to secure a fair outturn of work. A slightly modified form of this code system of task-work was largely adopted in the Punjab during the recent famine. The modification consisted in doing away with all intermediate proportional fining; for the full task the full wage was paid, and for anything less only the minimum wage. This system and its advantages are well described in the evidence of Messrs. Floyd and Wakefield who used it on the Ghaggar Canal excavation works. It is very simple and we think it would often secure a good outturn of work where the pure code system of task-work might fail. We recommend therefore that it should be recognised as a permissible variation in all the codes. Though the code system of task work must be brought into play sooner or later in cases of acute distress, there are in our opinion other systems better suited to lighter phases of distress which require relief though they are not expected to reach the point of famine. There is a long interval between a system of ordinary contract and the code system of task-work, and the practice followed in so many provinces during the late famine, and the experience gained therefrom, indicate the expediency of permitting the introduction of intermediate methods which, while affording greater protection to weak and unskilled labour than the former system, will nevertheless secure a stricter and more efficient labour test than is ordinarily possible under the latter. We consider, therefore, that the famine codes should permit the introduction of a system of payment by results on all relief works when first opened, and in the earlier stages of distress. If there are any districts or portions of districts in which the system would, for local reasons, be inapplicable, they can be excepted in the codes. The

system thus allowed to be introduced may be any of the systems A to E which have been described in paragraphs 208 to 212 of this report, and which vary from a simple modification of the code system of task-work by the elimination of a minimum wage to unrestricted piece-work in which there is no maximum limit to the earnings. It may rest with the local Government to decide which of these systems shall be authorised by the local codes. Whatever system of payment by results be introduced, provision must always be made for such weakly persons as may be unable, though not fit objects for gratuitous relief, to earn a subsistence wage under the system in force, or to obtain admission into any of the family or village gangs working under that system. This provision may be in the form of a special piece-work rate to be paid to feeble gangs, or they may be treated as task-workers under the code, and be granted the wages prescribed for classes II and III. The proportion of such weakly persons to those working under the payment by results system must be closely watched, and should it become excessive as distress deepens, the local Government should direct the discontinuance in any district or portion of a district of the system of payment by results, and the general introduction of the task-work system with a minimum wage. The local Government may also delegate this power to the Commissioner.

Payment by results must not be regarded as excluding allowances for dependants. When it is considered necessary to provide for these, as we think it must be when the distress is at all severe, it will rest with the local Government to decide whether the wages or rates to be paid to the workers should be so adjusted as to leave a margin for the support of their dependants, or whether the workers should be restricted to the scale of the famine wages proposed in paragraph 456, with separate allowances for dependants. The latter seems to us the safer course. The former entrusts the support of the dependants too entirely to the sense of duty, the capacity and the industry of the workers; and as the margin allowed must apply to all workers, whether they individually have no dependants, or few, or many, the tendency must be for it to be dangerously low.

The standard task.

462. Whether payment is made by results or not, and whatever system is adopted, it is necessary to define a standard for the task. We have already expressed our opinion that the standard proposed by the Famine Commissioners should be observed, and we recommend that task-tables should in future be prepared on the basis of a task for all relief labourers of class I employed on task-work equal to 75 per cent. of the task usually performed by able-bodied labourers on ordinary works. The task for labourers of class II employed on the same work (*e.g.*, in digging or breaking metal) should be not more than two-thirds of that of class I, or 50 per cent. of the ordinary task for able-bodied labourers. But labourers of class II and class III will usually be employed in carrying, and they cannot be refused work and wages, though, if the proportion of these classes is excessive, it will not be possible to give them a fair task based on that performed by ordinary labour. But some standard for tasking carriers is necessary, even if it be only for the sake of showing how far the actual tasking deviates from the standard, *i.e.*, the extent to which a real labour test is inoperative, and we have already suggested in paragraph 439 that appropriate rules should be framed by the local Governments for determining a standard task for relief carriers. It should be understood that the basis of tasks here

proposed applies equally to the calculation of rates for all modifications of task-work.

The task unit.

463. In connection with tasking, the question of the task unit requires consideration. In some provinces the practice of tasking each individual worker has been tried, but even where practicable, as in the case of metal breaking, it has generally been given up, as liable to great abuses. In the case of earthwork attempts have been made to task separately each digger with his group of carriers, but this has been found to involve an excessive number of measurements. On the other hand, the system of setting a task for a whole gang, consisting generally of about 100 workers, is open to objection, owing to the difficulty of distinguishing the slack from the industrious workers, and preventing the latter from suffering from the idleness of the former. We do not desire to propose any rule on this subject, but it appears to us that the Bengal plan of tasking the sub-gang, containing from twelve to twenty-five workers and including generally four or five diggers with their associated carriers, is the most effective and convenient.

Fixing rates for piece-work.

464. When piece-work subject to a maximum limit is given out, the rates should be fixed on the basis of the task-work tables and the wages prescribed for different classes of workers. Thus the rate per 1,000 cubic feet of earthwork will depend upon the required number of diggers with the proper complement of carriers according to the prescribed tables and formulæ. The rate per 1,000 cubic feet may then be taken as the sum of the daily wage due to the number of workers in each class according to the wage scale in force. A margin may be added for relief of dependants when this is authorized, or for the rest-day wage if piece-workers are not permitted to work on Sundays, which we think should be the general rule. The scale of rates adopted will be subject to enhancement or reduction when alterations are ordered in the wage basis. When there is no maximum limit to the task, the rate may be calculated in the same way, but may require modification on account of the absence of a limit, or with reference to rates paid by private employers or to other considerations.

Rest-day allowances or Sunday wage.

465. We consider that all workers to whom payment is not made by results should be allowed one day of rest in the week, either on Sunday or the local market-day, and should be given a rest-day allowance, equal to the minimum or class IV wage for adults, and the class III wage for working children. Dependants should also be given the allowance of their class. In the case of village works, or when payment is made by results, it may be left to the local Government to decide whether the rest-day allowance may be given or not. The rest-day allowances to workers should be recorded in the accounts as payments to labour, and not as gratuitous relief. The conditions as to previous attendance that should qualify for the allowance may be left to the discretion of the local Government.

Relief to new comers.

466. There should be no absolute rule that all new comers should be given a cash wage on first arrival at a relief work. They should, however, receive a dole in dry grain or a ration of cooked food, at the discretion of the officer in charge, if he considers that they are really in want of it.

Returns and accounts.

467. In considering the reports, statements and evidence which have been laid before us in relation to famine relief works we have experienced great difficulty in arriving at definite conclusions on many points owing to the defectiveness and want of uniformity in the system of returns and accounts adopted. As an instance it may be noted that in the North-Western Provinces the expenditure on works establishment and on contingencies has not been kept separate from that incurred on wages to the workers, a result that has to be borne in mind in all comparisons with the accounts of other provinces. The general question of famine returns and accounts is not one which has been referred to us for consideration, but effective analysis of the results attained under different methods of management on relief works depends so much on the adoption of a systematic and uniform system in the periodical returns, that we think we may usefully indicate the main points on which statistical information should be recorded. They are:—

(i) The total daily attendance of workers and of persons gratuitously relieved on the works; under "workers" to be shown separately the numbers of men, women and children (under 12), and under "gratuitously relieved" the number of adults and non-working children.

(ii) Workers on piece-work, if any, to be shown separately from those in receipt of a daily wage. The numbers of the latter in each of the prescribed classes to be shown separately, and for the former the numbers of men, women and children.

(iii) The total amount of the wages paid to workers on daily wage and on piece-work to be shown separately and brought into comparison with the amounts payable to them if paid the ordinary famine wage at the prices current.

(iv) Payments to works establishment to be recorded separately from all other payments.

(v) Payments, other than wages or earnings of relief workers and of works establishment, to be shown together under "other items", unless it is considered desirable to show them under separate sub-heads, such as conservancy, hutting, etc.

(vi) The total value at normal rates of work done during periods of not more than one month to be brought into comparison for such periods with the expenditure incurred during the same periods.

(vii) Total value at normal rates of work done up to date to be similarly brought into comparison at intervals of not more than one month with total expenditure to date.

(viii) The total payments on account of the gratuitously relieved to be separately shown.

We consider that information on all these points should be given in the final returns, and that the initial and derived returns should be prepared accordingly so as to work up to them. In addition certain subsidiary information will be required by the authority responsible for the efficient management of the works,

which will be incorporated in the initial returns, but will not necessarily be carried into the final returns. The details will depend on the character of the work and the system under which it is being carried out, but they will relate to such points as the number of labourers on daily wage employed on general duty or irrespective of task, the number of diggers and their outturn of work in comparison with the amount due from them under the prescribed task, the number of carrier units in comparison with the number required under any rules for fixing a standard carriers' task and the like.

We fully recognise the importance of making relief returns, accounts, and office work generally, as simple as possible, but in order to attain simplicity the first essential is a clear formulation of the demands for statistical information which will be made by the authorities. We have indicated all the points on which we consider information is ever likely to be required, in the hope that future returns will not only be much more useful but also much simpler than many of those which have been maintained during the recent famine.

Ready reckoner for pice wages.

	2	3	4	5	6	7	8
	Adults.			Children.			
	I	II	IV	III	V		
	Diggers.	Carriers.	Minimum.	Working children below 12.	Non-working children over 8.	Non-working children below 8.	Remarks.
Grain equivalents.	Oz. 40	Oz. 30	Oz. 24	Oz. 16	Oz. 14	Oz. 10	
Wage basis in lbs. per rupee.	Pice.	Pice.	Pice.	Pice.	Pice.	Pice.	
12	13	10	8	5	5	3	Adult dependants and non-working children when not relieved by grain or cooked food will be entitled to a cash dole of the amounts shown in columns 4, 6 or 7 as the case may be, though as a rule non-working children should be relieved in kitchens. Cash doles to adults and children on gratuitous relief in their homes will also be as shown in columns 4, 6 and 7. With a basis of 27 lbs. to the rupee the wage of the carrier class is identical with the minimum, but in practice this can always be avoided by taking either 26 or 28 lbs. as the basis according to circumstances.
13	12	9	7	5	4	3	
14	11	9	7	5	4	3	
15	11	8	6	4	4	3	
16	10	8	6	4	4	3	
17	9	7	6	4	3	2	
18	9	7	5	4	3	2	
19	8	6	5	3	3	2	
20	8	6	5	3	3	2	
21	8	6	5	3	3	2	
22	7	5	4	3	3	2	
23	7	5	4	3	2	2	
24	7	5	4	3	2	2	
25	6	5	4	3	2	2	
26	6	5	4	2	2	2	
27	6	4	4	2	2	1	
28	6	4	3	2	2	1	
29	6	4	3	2	2	1	
30	5	4	3	2	2	1	
31	5	4	3	2	2	1	
32	5	4	3	2	2	1	

SECTION II.

GRATUITOUS RELIEF, AND THE RELIEF OF ADULT DEPENDANTS AND NON-WORKING CHILDREN OF WORKERS.

The view taken by the Famine Commission.

468. The view taken by the Famine Commissioners, and accepted by the Government of India, was that labour commensurate with the labourer's powers should be exacted from all applicants for relief; and that the old, the infirm and other persons

incapable of work should be gratuitously relieved in their own villages. In discussing the question of gratuitous relief, the Famine Commissioners observed in paragraph 141 of their report :—

"If gratuitous relief is never given to those who are able to do a reasonable amount of labour, but only to the children, infirm, and old, to cripples and house-ridden people, and to those necessarily required to attend to them; and if there is an efficient system of village inspection to see that the persons on the relief list are, as far as outward signs go, deserving of it, and that they do receive it; the result will be that relief will reach the majority in the most effective way, though there may be a certain small number of people who get it improperly. With these two safeguards, the danger of the misuse of the State funds will be minimised, and the danger of imposing a test so repugnant to the people as to prevent their accepting relief will be avoided. But there will still be room for relief houses, the proper sphere of which will be to receive such persons as have separated themselves from their homes and villages,— aimless wanderers, habitual beggars, or debilitated people who have fallen out of the ranks of the labourers and require to be fed up or receive medical attendance in order to regain strength and return to work."

In these principles we express full concurrence, and the experience of the recent famine does not suggest that in their broad application to home relief any departure should be made from them.

The classes eligible for gratuitous relief.

469. In codifying these recommendations of the Famine Commissioners, the framers of the provisional code prescribed that—

"The following classes of persons would at such times (times of scarcity or famine) ordinarily receive gratuitious relief, provided that they have no relatives able, and by the custom of the country bound, to support them :—

(*a*) idiots and lunatics,

(*b*) cripples,

(*c*) blind persons,

(*d*) all who from age or physical weakness are incapable of earning a living,

(*e*) all persons whose attendance on the sick or on infant children in their homes, is absolutely necessary."

This prescription of the code, if properly and liberally interpreted, appears to correctly express the views of the Famine Commissioners as to home relief, and it is reproduced in all the existing codes. In the Bombay, Madras, and Punjab codes there are some small differences in the wording of the proviso, or of the classification, which are apparently intended to guard against the proviso being too rigidly enforced, or to make sure that class (*d*) is liberally interpreted. We do not think that these differences need be objected to. It is not intended, nor would it be proper, to give gratuitous relief to those who are capable of attending relief works, and of doing a reasonable amount of labour there; and the five classes enumerated appear to embrace all persons who are "other than able-bodied." The case of pregnant women, which may be thought a doubtful one, is expressly admitted by one of the codes. We are certainly of opinion that if women of whose pregnancy there can be no doubt, or nursing mothers, apply for gratuitous relief, and are not debarred by the proviso, they should be considered temporarily eligible. The case of *parda nashin* women and of a few other persons of fallen fortune, who cannot be fairly expected to attend relief works, is provided for in another chapter by most of the codes. With

these exceptions, the prescription of the provisional code above quoted does not seem to us, if properly interpreted, to exclude from the receipt of gratuitous relief any person or class of persons in need of relief who cannot reasonably be expected to go to a relief work. In the case of a relief worker, no inquiry is necessary or is allowed as to whether or not he is really in need of relief. The fact of his submitting to the test of giving a reasonable amount of work in return for a subsistence wage is considered to be sufficient proof of his necessity without further inquiry. But in the case of a recipient of gratuitous relief there is no such test and no such proof. It was for this among other reasons that the Famine Commissioners insisted so strongly upon the safeguard of an efficient system of village inspection to see that the persons receiving gratuitous relief are really deserving of it. An inquiry was to be made in each case, not merely to ascertain whether the applicant fell within any of the classes enumerated but also to make reasonably sure that he was personally destitute and without relations able and bound to support him. It is this latter part of the inquiry which requires the most care and judgment, and in respect to which the most trust must be placed upon the discretion of the inspecting officers.

The classes enumerated embrace all deserving objects.

470. We have said that we consider that the definition of persons eligible for village gratuitous relief quoted above from the provisional code is in ordinary circumstances sufficiently wide and that it requires no alteration. But we desire to point out, and to lay stress upon the fact, that no persons of the classes described in that definition should be considered ineligible for village relief under the proviso because the bread-winners of the family are employed on relief works, or be referred to relief as dependants on works for the same reason. They should on the contrary be allowed free option either to go to relief works as dependants, or to apply for village relief, and if they choose the latter course they should get village relief if not ineligible on other grounds. In the event of their going to a relief work as dependants, the fact of their presence on the work and their submission to the control and discipline that is there maintained has to be accepted as a sufficient test of their necessity, and no further inquiry into their circumstances is required. If however they elect to remain in the village and to be put on the gratuitous relief list no such test is forthcoming, and it therefore becomes necessary to make an inquiry into their circumstances as in the case of all other applicants for such relief. In such inquiry the fact of the bread-winners of the family being on relief works where they only earn wages sufficient for their own support or having migrated to a distance to obtain employment as "cooly" labourers will be a very important consideration, but it will not necessarily be conclusive proof of the necessity of the applicants. The existence of private means is not incompatible with such circumstances. The inquiry should embrace so far as possible the applicants' whole circumstances before they are finally brought upon the list, though as a temporary measure pending full inquiry, and especially when the stage of acute famine has been reached, absence of this kind of their ordinary bread-winners and supporters might of itself be accepted as sufficient to bring them on the list for the time being.

Two exceptional cases when an expansion of gratuitous relief is permissible.

471. There are two exceptional cases in which an expansion beyond this definition may legitimately be allowed. The first is the case of aboriginal hill and jungle tribes. We deal fully with the treatment of these people both as regards works and gratuitous

relief in a subsequent section of this chapter. The other exceptional case is when the rains break, and it becomes impossible to provide suitable work fairly adjacent to the homes of the people. A certain proportion of able-bodied persons must be in the villages at this season for cultivating the fields. In the case of the cultivator, he may have difficulty in finding the means of subsistence between the sowing of his crop and the reaping of the harvest; and in the case of the labourer he may not be able to find continuous employment for himself and his family, or the wage he may get may be a bare subsistence wage for himself only and insufficient for the support of his family. In such circumstances some relief is necessary either by way of taccavi advances or by an expansion of gratuitous relief. When an expansion of village relief is allowed in these circumstances, it will have to be conducted with great care and caution and under the closest supervision, as otherwise it might open the door to much abuse.

Necessity for early organization of village relief.

472. We are of opinion that the organization of village relief and village inspection should begin at least as soon as relief works, and that as a general rule the actual distribution of a certain amount of village relief should begin at the same time or soon after. We attach very great importance to the early organization of village relief. Besides immediate and prospective relief to the destitute incapables in villages, one great object of the organization is to enable the district officer to obtain a knowledge of the real condition of the people generally, to ascertain whether all who require relief on works, or in poor-houses or at home, are getting it, or are in a position to get it if they require it, and to form an estimate of the efficiency of the measures of relief afforded which he cannot get otherwise. The first recipients of village relief are the class of destitute incapables who in ordinary times have no relatives able to support them, and who depend habitually upon the voluntary alms and assistance of their neighbours. Bearing this fact in mind, we consider that when the necessity for starting regular relief works has had to be admitted, the necessity for giving gratuitous relief to this class will as a rule assert itself at the same time. It is no doubt undesirable to take action which will have the effect of causing the springs of private charity on which these people ordinarily depend to dry up prematurely, but the disposition to trust too long to private charity is a dangerous one. When the existence of distress not restricted to the very poorest classes has become well established, it will generally, we think, be found that village charity is incapable of meeting adequately the necessities of the helpless destitute of this class. Later on when distress becomes really severe many of the other class of incapables, who in ordinary times depend upon their relations, will have to get State relief, if such relations are people of small means.

Fixation of a numerical standard limit of gratuitous relief not desirable.

473. In paragraph 106, while treating of the deviations from the prescriptions of the provincial code that occurred in the North-Western Provinces, we have alluded to the practice of fixing a numerical standard limit of gratuitous relief. We do not approve of the fixation of a limit beyond which if gratuitous relief be given, explanations must be submitted to the local Government or other superior authority. We think it inadvisable to fix percentage limits entailing special explanatory reports, though they may be suggested as guides to administrative or supervising officers.

The gratuitous relief dole.

474. Village gratuitous relief, we think, should ordinarily be given in the shape of a grain dole equal to the grain equivalent of the minimum wage, or the adult dependant's wage, recommended in paragraph 456 of our report, namely 12 chattaks. In the case of children the amount of the grain dole should be that recommended by us for class V, namely 7 chattaks for children between 8 and 12 years of age and 5 chattaks for children below 8. But we think that all the codes should continue to retain the alternative of giving a money dole instead of a grain dole; when cash doles are given the amounts should be those shown in columns 4, 6 and 7 of the ready reckoner or pice table at page 282 of our report. When famine is very severe it may be necessary in places to establish kitchens for feeding the children on village relief, but this will not always be possible. We observe that section 227 of the Punjab code contains a provision requiring the District Superintendent of Police to obtain from the Civil Surgeon for the guidance of his subordinates a simple statement of the kind and quantity of food that should be given to starving wanderers in urgent need. This is a useful provision which might well find a place in all the codes.

Non-working children and adult dependants of relief workers.

475. As regards the non-working children of relief workers and their adult dependants who are present on the works and are treated as such, they can either be fed in kitchens or a cash or grain allowance for their support can be given to the workers on whom they are dependent. The provisional code contemplated that the non-working children should invariably be fed in kitchens while adult dependants should be given the minimum wage. All the existing codes, except that of Burma where there are no kitchens, provide for both systems, namely for cash or grain allowances and for kitchens. The advantages of kitchens are that they act as a test and tend to keep off people not absolutely requiring relief, and that they are especially suited to the requirements of young children who in times of acute famine run the risk of being neglected by their parents (it may or may not be for reasons beyond the control of the parents) and consequently deteriorate. The disadvantages are that they are no real test in the case of certain low castes, while in the case of respectable people and the better castes they may be too severe and deterrent a test, particularly with adults. Also that they are expensive and require the maintenance of large establishments. The advantages of the cash or grain allowance system are that the system is easily worked, that it is inexpensive in the matter of establishment and that it involves no repugnant test. The disadvantages are that it may prove too attractive and so become unduly expensive, and that in times of severe famine it fails to afford with certainty sufficient relief, particularly to children.

Preference should as a rule be given to kitchens.

476. We are of opinion that all the codes (except perhaps that of Burma where peculiar circumstances exist) should continue to contain provision for both systems, and that local Governments should have discretion to adopt in any particular case the system which seems most suitable to existing circumstances. But as a general rule we are in favour of the kitchen system in the case of children. In the case of adults the existence of caste or other prejudice may undoubtedly prevent many persons requiring relief from accepting it in the shape of cooked food, but with young children we think this is true only of a few tracts, or particular castes. The experience of the recent famine and the evidence we have taken on the subject

confirm us in the belief that in the great majority of cases parents will not object to sending their young children to kitchens, although it might be they would not be willing to accept such relief themselves. In scarcities, or at the beginning of famine, the cash or grain allowance system may be found convenient and unobjectionable for children as well as adults. But if it is considered necessary to enforce a test owing to the excessive numbers of persons claiming to be dependants attracted, or if it is found that sufficient relief is not afforded to children, then the kitchen system should be substituted. In severe famine we think it will always be necessary to introduce the kitchen system for children. But in order to guard against the possibility of deserving persons, who from caste or other prejudice cannot accept cooked food, being excluded from all relief although they really require it, we think that when the kitchen system is introduced discretion should be allowed to the officer in charge of the work to exempt from the obligation of accepting cooked food persons who from caste feeling or prejudice, or local status, cannot reasonably be expected to submit to such a form of relief, and to give such persons either a money dole or an uncooked ration, preferably the latter.

Relief of dependants under systems of payment by results.

477. In paragraph 461, while speaking of relief works on the system of payment by results, we have stated that such a system must not be regarded as excluding allowances for dependants, and we have expressed the opinion that when it is considered necessary to provide for dependants, as we think it must be when the distress is at all severe, it should rest with the local Government to decide whether the wages or rates to be paid to the workers should be so adjusted as to leave a margin for the support of their dependants or whether the workers should be restricted to the famine wages proposed by us with separate allowances for dependants. It is our belief that no local Government will ever use the system of piece-work without a maximum unless it intends that it shall be a condition of the system that the workers shall support their dependants out of their earnings. As to piece-work with a maximum and other systems of payment by results of that nature, we think the margin allowed by the maximum will always be small and intended rather to encourage industry than to support dependants who may or may not exist. If such a system is used for famine relief without separate allowances to dependants, we think local Governments would be wise to restrict it to periods of comparatively light distress. If distress is at all severe we do not think it safe with such a system to trust to the relief workers being able and willing to support their dependants out of what they earn on the works.

Poor-houses.

478. Poor-houses are intended primarily for the reception and relief of persons, such as vagrants and professional beggars unfit to work, who either have no homes or cannot conveniently be sent to their homes, and for contumacious persons fit to work who refuse to labour. The decision as to the particular stage of the distress at which a poor-house system should be established depends very largely upon the degree of severity of the distress and upon the measures, particularly in the direction of village gratuitous relief, which have been taken to meet it. In the early stages of distress, whether or not to start poor-houses must be a matter of local discretion; but we think that when the prevalence of more or less severe and general distress has been recognised by the starting of relief works and the organizing of village relief, it may be taken as a general rule that poor-houses at principal centres are

are certainly desirable. There will, by that time, be undoubtedly a considerable number of vagrants and professional beggars who can best be relieved in poor-houses. Moreover poor-houses have by this time another use. As the Famine Commissioners suggested, applicants for village relief can in case of doubt as to eligibility be sent to poor-houses and so can contumacious idlers on the works. When famine is very severe, many people resort to poor-houses or are brought to them in a greatly debilitated and sometimes even in a moribund condition. The poor-houses then become somewhat of the nature of hospitals or large infirmaries. In these circumstances experience shows that the minimum ration is quite inadequate, and a larger ration, or special dietary, has to be prescribed by the medical officer in charge of the institution, not merely for those admitted to the hospital side as patients, but also for many of the ordinary inmates. We therefore think that all the codes should contain a distinct provision that the officer in charge of the poor-house, who if possible should be a medical officer, should have full discretion to give any inmate, whether admitted to the hospital or not, a special diet suited to his requirements. In practice, this is what was generally done during the recent famine.

SECTION III.

THE ABORIGINAL HILL AND JUNGLE TRIBES.

Relief of hill and jungle tribes should be a specialized branch of relief organization.

479. One of the greatest difficulties of relief administration during the late famine has been in dealing with the half-civilised aboriginal population of the hill and jungle tracts. The difficulties experienced were not confined to any one province, but were a feature common, in a greater or less degree, to all the provinces that had to organize relief for people of this class. The ordinary code machinery for meeting various degrees of privation and suffering, including the automatic labour-system which provides for all able to labour sufficient work at a wage large enough to keep them in health and strength, has proved in their case more or less inadequate. As pointed out by the Famine Commissioners in paragraph 83 of their report, there will always be classes who, from their habits, personal character, or ignorance, will neither help themselves nor be easy to help, and who, though they suffer from extreme want, will linger on without applying for or accepting relief till it may be too late to save their lives. This description applies to the condition of things among these hill and jungle people during the recent famine. In many cases they responded but little to the efforts made to bring relief within their reach, and as a consequence they suffered much, and the mortality among them stood high, especially during the rainy months. It is obvious that their relief must be a specialized branch of relief operations, and before formulating our recommendations on the subject, it will be convenient to examine the various measures adopted or suggested for their relief in the different provinces.

The aboriginal races in the Central Provinces and their characteristics.

480. In the Central Provinces, the aboriginal tribes constitute a considerable section of the people, numbering about two-and-a-half millions out of a total population of ten and three quarter millions. They are to be found in varying degrees of civilisation. Broadly speaking, however, they may be divided into two classes, those who by their intercourse with their Hindu neighbours have acquired some of the arts of civilised life and have become merged in the general

labouring and agricultural population, and the rest, constituting the majority, who still retain their distinctive characteristics as jungle tribes. The case of the former presents no special difficulty. They are amenable to the influence of the ordinary relief operations like the rest of the population. It is only the latter class whose case demands special consideration. Included in this class are the Baigas of Mandla and Balaghat, the Bharias of Chhindwara, the Marias of Chanda, and the Dhanwars of Bilaspur. The efforts of Government to teach these people the elements of civilisation have generally failed though their grosser habits of human sacrifice, and the like, have been suppressed. Their mode of cultivation is of the rudest description. The axe, rather than the plough, is their principal implement of husbandry, and a yoke of bullocks is beyond their management. They have to move their huts at short intervals from one tract of forest to another as the land they roughly cultivate becomes exhausted in a few years. The crops they grow are the coarse hill millets, which yield a comparatively large return with but little trouble. They avoid the better classes of crops requiring a regular method of cultivation and greater expenditure of time and labour. Jungle roots and forest-products form a recognised and substantial portion of their fare. These, however, do not contain sufficient nourishment, and a certain admixture of cereal food is essential for the preservation of health. Some of them rely mainly for the modicum of grain sufficient to temper their diet of wild roots, fruits and flowers, upon their harvest-earnings in the adjacent civilised tracts in the plains, and are much affected by the loss of such earnings whenever those harvests fail. They are thriftless, improvident and careless of the future; they accumulate no wealth, and are possessed of no reserve of resources. When their own crops fail, they are reduced to a state approaching starvation much more rapidly than the people of the plains. They then wander in the forests and live on what they can pick up there, without the usual addition of a small portion of some cereal. But this precarious and unsubstantial diet fails after a short time to sustain their bodily strength and leaves them unfit to resist the depressing influences of the rainy season, and the malaria which their forests breed. During the rains, moreover, the wild edible products are much more limited than in the summer, and some become unfit for food or even harmful in their effects. Leading a free wild life in their forest homes, isolated from their civilised neighbours and not amenable to the influence of the arts of settled life, they develop a spirit of independence and impatience of control and discipline; and like the wild beasts among whom they move, they become shy, timid and suspicious to a degree. Such is the condition of the wildest and the lowest of these tribes, and from this point they vary in every degree of civilisation until they reach the level of their Hindu neighbours. To the wilder part of these people ordinary relief works can do but little good. Steady regular labour, submission to discipline, and method in the general conduct of life are qualities essential on famine as on all organized work, and these qualities they do not possess. They therefore generally prefer to starve in the recesses of their hills and jungles rather than to join the relief works in the plains. Even when sometimes forced to come under pressure of starvation, their free and easy nature soon rebels against the irksome fetters of organization, and any attempt to make them conform to order may quickly drive them back to their jungle homes and haunts. The inhospitable nature of the country they live in adds to the difficulties of relieving them. It is often a hot-bed of malaria and fever, and its steep hills, rushing streams and tangled mass of jungle

combine to make it always difficult of access, and during the rains almost impenetrable.

Suggestions of the Central Provinces' officers.

481. Considerable experience in attempting to relieve these people was gained in the Central Provinces, and the following is a summary of the recommendations made on the subject by the officers there: —

Mr. Fuller, Commissioner of the Jabalpur division, gave his opinion as follows:—

"There are certain classes of the population who have shown the greatest repugnance to resort to relief works, and have held aloof from them even in direst extremity. These in the main belong to the aboriginal tribes, the Gonds and Kols. The Gond villages in Mandla suffered very severely indeed. Yet I only came across one which sent large numbers to a work, and this was situated within half a mile of the camp. ..... The Gonds will work in their own village, or in their own way, but will generally not submit to the novelty and the discipline of a relief work. If they are to be relieved they must be relieved in their villages and be provided with work on the spot under the control of the headman. I believe that it would be easier to arrange for this than would at first sight appear. ..... In the case of aboriginal people it will be necessary to grant relief in this form (village relief) with exceptional liberality as soon as signs of distress appear, and to include within its range persons who are capable of doing light work. I think that it would be quite possible to arrange for their employment on petty works of improvement within their village. People of this class are, as a general rule, honest in their dealings with Government, and I have known cases in which village headmen have at their own instance successfully insisted on the performance of some work by those on the gratuitous relief list."

Mr. Sharp, special relief officer of the Mandla district and one of the most important witnesses on the subject, considered that kitchens and gratuitous village relief must be the backbone of relief throughout the whole period of famine for aborigines. He recommended that these measures should be thoroughly organized, and be in working order before the rains and in anticipation of the need for them and that in addition a system of petty village works should as far as possible be arranged for. He added that whatever relief measures are adopted they must be early advertised, that is, the people must be told of them in time and be actively encouraged to take advantage of them. Mr. DeBrett, Deputy Commissioner, Mandla, suggested that when dealing with aboriginal tribes who are timid about going to relief works, it would be well to make patwaris prepare, besides the list of persons fit for village gratuitous relief, a further list of persons who, though able-bodied, require aid. The mukaddam (village headman) would be given charge of these men and directed to make them work at improving village sites and roads, embanking fields, enlarging and improving village tanks, eradicating *kans* grass, or any other useful village work that might be available. These people would, he thinks, work under their own headmen willingly, and are honest enough to carry out their side of the bargain. They should be kept in their villages and prevented from wandering and losing condition. A list of possible village improvements should be prepared in anticipation of the occurrence of famine. Mr. Laurie, Commissioner of the Nerbudda division, considered that the relief centres in the Chhindwara forests, where the people were fed at kitchens and given, if capable, some light work to do, answered their purpose well. He pronounced against any attempt to introduce "payment-by-results" where the shy and suspicious Gond is concerned. He would close all relief works in the

rains, and place on gratuitous relief all persons who seem likely to starve whether apparently fit for work or not. He expressed the opinion that the reduction of the forest dues on bamboos and articles manufactured from the products of the forest was a great help to the Gonds. Mr. Ryves, Deputy Commissioner, Chhindwara, condemned with Mr. Laurie the piece-work system for the Gonds, and agreed with him that the relief centres worked well, although at first the Gonds, Korkus, and Bharias looked upon them with suspicion. He considered these relief centres preferable to village relief in the case of forest tribes, and explained that being open to all applicants, they relieved persons of all conditions, whether eligible for gratuitous village relief or not. He was strongly of opinion that relief works for the Gonds should be numerous, easily accessible and near their homes. Mr. Crump, Deputy Commissioner, Hoshangabad, thought it impossible to persuade the Gonds to leave their jungles and come to relief works in the plains, and suggested that they should be employed by the forest department as far as possible. Mr. Greany, Extra Assistant Commissioner, Hoshangabad district, proposed to place the Gonds in the forest villages on gratuitous cash relief at the beginning of the rains, a special officer visiting their villages in rotation for this purpose. Mr. Lampard, a missionary in the Balaghat district, mentioned some Baiga communities whom he found in an advanced stage of emaciation because they would not leave their homes for relief works. He put them on village relief at half the code rates for two months and so saved them. He says these people can do with much less grain on account of their intimate knowledge of jungle foods, and he recommended small village works for them, and gratuitous relief as far as possible in grain.

Aboriginal tribes in the Berars and measures taken to relieve them.

482. The Korkus and Gonds in the Melghat taluk of the Ellichpur district in the Berars belong to the same stock as their fellows in the adjoining Satpura or plateau districts of the Central Provinces, and are in much the same stage of civilisation. They live partly on the produce of a rude cultivation, partly on wages for intermittent forest work and partly on jungle produce. The system of relief pursued here by the forest officers, who were placed in charge under the Deputy Commissioner, appears to have been to a certain extent successful. They acted more on the spirit than on the letter of the famine code, and modified its provisions so as to make them suit the special characteristics of these people. The problem was to get persons to do work "who hate steady work under supervision and road work especially." This they endeavoured to accomplish by patience and moral suasion. They relaxed the ordinary relief work rules, forebore from exacting rigid tasks, and paid a wage sufficient to support the worker and his dependants, if the worker showed that he was doing his best. The works were necessarily numerous and scattered, and no attempt was made to obtain exact measurements of work done, or to classify the labourers and determine wages in strict accordance with the code. Subsidiary to this relief by means of work, export of forest produce by the hill people was encouraged by means of reduced forest dues, and cheap grain shops were established at relief centres. Each of these relief centres served an area of about 150 square miles, and gratuitous or semi-gratuitous relief to those who could not work was there distributed, the recipients either living at the relief centre or in a neighbouring village. Actual relief at the homes of the people was not

attempted, and relief centres properly and timely organized, as they were, are thought to have met the needs of the case.

Aboriginal tribes and measures taken to relieve them in Bombay.

483. The difficulties of relieving aboriginal semi-hinduised races were also experienced in the Ghât districts of the Bombay presidency, though the people there are for the most part more civilised than the jungle races of the Central Provinces. The Bhils of Khandesh are another instance in point. In all these cases the features of the problem are the same. Mr. Orr, the Assistant Collector in charge of the hill taluks of the Poona district, described the following main difficulties encountered in directing relief in this tract: (1) the impossibility of maintaining relief works near the hills in the rains; (2) the necessity for keeping the hill agriculturists near their fields for the greater part of the year, but particularly in the rains, on account of the continuous character of the special system of agriculture pursued by them; (3) the difficulty of persuading the Koli tribe, though landless labourers, to leave their hills for work in the plains; (4) the difficulty of getting the grain required for village doles conveyed to the hill villages in the rains. He remarked that these difficulties necessitate a modification of the ordinary policy "of not encouraging people to come to relief works until all their home resources are exhausted"; that it is better that in this particular case the people should save their little resources till the rains; and that relief works in or near the hills are an absolute necessity. He explained how the relief camps were gradually brought near the hills, and that even then there were villages where the people preferred to let themselves run down to a condition in which gratuitous relief was absolutely necessary. He added "the timely opening of works near the hills, even if they are sparsely attended, is a safeguard against the demoralisation to which the hill people are prone when they have no ocular evidence of the actual existence of the means of relief within easy reach of them." In addition to works near the hills, he recommended scattered village works in the hills, just before the rains, when the *rab* seed-beds are being prepared, and the undertaking of such forest work as may be available. Mr. Arthur, the Assistant Collector in charge of the western taluks of Satara, explained the difficulties he met with in a similar manner. The hill people refused to attend the relief works and suffered much during the rains, and regular village inspection and systematic gratuitous relief became necessary. Advances for seed and subsistence were largely given and kitchens opened. He found the greatest reluctance among the hill people to accept gratuitous relief even in the form of grain, as they have a strong sense of self-respect. In Khandesh the Bhils, according to Mr. Cumine, the Collector, were most difficult to manage. He stated that the women to some extent would come to the ordinary relief works, but the men would not, and that "if relief works have to be started for the Bhil, it is no use offering him the usual ones: employment in the forest—the cutting of creepers, felling or planting trees, repairing cairns, etc.,—would be most congenial to him."

Aboriginal tribes and measures taken to relieve them in Madras.

484. In Madras there are the cases of the Khonds and Savaras in Ganjam and Vizagapatam, the Chenchus of Kurnool and the Kois of Bhadrachalam in Godavari. The Savaras of Ganjam are an example of a semi-civilised race, practising a rude agriculture and willing to work for wages on timber-cutting and similar forest work. For some months of the year they depend greatly on the *mahua* and mango crops and on the pith of the sago palm and on jungle

tubers. These failed them in the dry season of 1897, and in some localities more than half the population were in receipt of gratuitous grain doles for a short period. Special civil works of the nature of jungle and road clearing were also devised for them in their hills, and it was found best to pay them by the piece and not on the task system. In Vizagapatam similar works on similar lines were provided for the Savaras, and no difficulty was found in getting them to attend kitchens, while grain doles were given in the more distant villages. Grants for seed-grain were also made with most beneficial results from the charitable relief fund. The Chenchus of Kurnool are a much wilder and shyer race, living almost entirely on forest produce. The relief offered to them consisted of light work in the forests, but even this they would not accept. They however were willing to fashion spokes and felloes on contract terms, and they accepted kitchen relief. The Kois of Bhadrachalam are in a somewhat similar stage of civilisation as the Savaras. The first attempt to relieve them was by a road work on famine code terms. This failed, and though at a later period similar works managed to attract a few persons, they were never generally successful. To this there was an exception near Dummagudem, where the Revd. Mr. Cain and his wife, of the Church Mission Society, who after a residence of over twenty years had gained the confidence of the people, succeeded in getting good work out of them in tank repairs. Eventually gratuitous relief had to be granted on a large scale, and to those not entitled to this help, assistance was given by selling imported grain at normal rates, the loss resulting from these transactions being met at first from the charitable relief fund, and when that was exhausted, from public funds. Reviewing the special measures adopted, the Collector wrote as follows :—

"Test works are not suited to these jungle tribes, for they are naturally indolent and averse to work of any kind. They are not used to such as earth-work. Moreover, they will not leave their villages on any consideration. If at all they will work, employment must be provided near their homes. So they cannot be massed on any central work, and a large number of works means a waste of money, as adequate supervision cannot be provided except at a prohibitive cost. It is also utterly impossible to enforce task-work which is an essential condition of relief works. The grant of gratuitous relief must suffice until the country is opened up, and their chronic state of indebtedness to their sowkars removed. Highly scientific and complicated measures of relief are useless in their present condition of indolence, and no system of loans can be tried, as the Koya has no permanent landed property of any kind, but shifts his *poda* from year to year. Relief in kitchens has not been tried, but it is not likely to find much favour with the Koya, as their villages are small and scattered."

Aboriginal tribes and measures taken to relieve them in Bengal.

485. The causes which rendered relief to aboriginal tribes difficult in other provinces were also present, though in a somewhat milder form, in the districts of the Chota Nagpur division in Bengal. Referring to the comparatively very small number of persons who attended many of the relief works, notwithstanding the unprecedentedly high prices of food grains and the undoubted depletion of food stocks, Mr. Forbes, the Commissioner of the division, stated in his famine report :—

"This, there can be no doubt, must be attributed to the strong dislike to anything in the shape of 'task-work' engendered by the independent and free life to which the aboriginal and semi-aboriginal tribes are accustomed and especially to their being able to sustain life at a pinch for weeks together on berries and roots without being obliged to have recourse for their daily food to any form of unwonted labour..... In all these three

districts (Palamau, Lohardaga and Hazaribagh) it has been found quite a difficult matter to induce people even of the working classes, and with no other means of subsistence (except jungle roots and fruits) to accept task work or piece work on our relief works."

Surgeon-Captain Nott, Civil Surgeon, Hazaribagh, stated that the general characteristics of these people are such that they will go on with the help that their jungles give them in the shape of edible products without seeking aid at the Government relief institutions until they are unfit for work, and will then uncomplainingly remain in their houses to die. His knowledge of the people has convinced him that they will prefer to do this rather than work at unusual occupations, such as digging earth. He continues :—

"Starvation is not a pure and simple dying for want of food, inasmuch as these jungly people usually can obtain sufficient food to stay their hunger, but without nourishing their bodies, leading to a slow death by starvation dysentery. In this connection I feel sure also that payment in money, however high a rate is given, will not lead people, who have been used to obtain rice at 18 or 20 seers to the rupee or not to take it at all, to purchase it at the rate of 4 or 5 seers to the rupee. They will most certainly purchase inferior grain or *mohwa* and then lie idle until they again want, with the result that their frames will become debilitated by the time they are required to do hard work under unfavourable climatic conditions during the rainy season. What therefore is to be done taking the people as they are? I must admit I fail to see any but two plans, both most objectionable; these are, either wholesale gratuitous relief to able-bodied men and women, beginning long before there is any evident need of it and preferably in grain; or otherwise to make attendance at relief works compulsory, payment to be made in grain."

The Revd. Mr. Campbell of Pokhuria in the Manbhum district told us in his evidence that the majority of the relief workers under his charge belonged to aboriginal tribes, Santals, Kols, Kodas, Maliks, Bhingas, etc. They stuck to the works all through the famine and gave no trouble whatever. He added that he had no difficulty with them because he had lived among them and known them for many years. They were timid with strangers but not with him.

With regard to the general question of managing people belonging to aboriginal races, Mr. Glass, Chief Engineer, Bengal, has stated as follows :—

"I have had much experience of the aboriginal hill tribes in the Central Provinces, but not in Bengal. I have not had to do with them in times of famine. I have had great numbers of them on works, and invariably found them easy to manage when treated with kindness. They always worked by themselves, and would not join with the people of the plains.....I had no difficulty whatever in dealing with the aborigines there (Central Provinces).....I know them very well, and I have never had any difficulty because they knew me personally."

The people to whom Mr. Glass refers must have been men of the more civilised tribes, as he says they were accustomed to resort to public works: but there is no doubt of the general truth of his remarks.

Recommendations. Classification.

486. A consideration of the evidence summarised above leads us to the conclusion that the ordinary rules of the code regarding relief measures will not bear application to these tribes, but must be relaxed to suit their peculiar characteristics and surroundings. As soon as the first signs of distress appear, careful local enquiries should be made, and if it is found that the aboriginal population has generally begun to live on jungle products without a reasonable admixture of cereals, arrangements for inspection and relief should be at once made. This should be followed by an active, careful and well-directed enquiry into the circumstances of the people, accompanied by selection of those whose resources are

wholly or partially exhausted and who will need relief sooner or later. The principle to be kept in view should be that selection must here take the place of the usual self-acting tests. Persons thus selected for relief, immediate or prospective, might be divided into three classes—

(1) those incapable of work and requiring gratuitous relief;
(2) those capable of work and absolutely without resources and therefore needing complete relief; and
(3) those with some resources and requiring only partial relief.

As regards the first class, the ordinary code definition of persons entitled to gratuitous relief if strictly applied will be found too narrow. In the first place, cases in which incapables could be safely excluded under the proviso will be extremely few. In the second place, not only persons permanently incapacitated by reason of age or infirmity from working for their livelihood, but also all persons showing signs of emaciation, or physically capable of doing only very light nominal work, should be temporarily admitted. For the second class work near their homes, of a kind they are likely to accept, should be provided. The wages or doles for these people should be paid in grain, or partly in grain and partly in cash. It has been noticed that, in some places, these people do not buy grain at prices greatly above those they are accustomed to, even if they have earned some money on works. In other places they have obstinately refused to work for cash wages below the customary rate, for fear that such rate would then be permanently reduced. People of the third class should not be prevented from joining in the work provided for the second class if they wish to do so, and if work can be found for all: but as a rule we think the best form of partial relief for this class will be the sale to them of food-grains at cheap rates and in quantities just sufficient for their requirements, through the agency of shops or depôts under direct official management or through grain dealers specially appointed for the purpose.

Class of works and management.

487. Relief works for these people should generally be separate and reserved for them alone. If it is ever necessary to give them employment on open works they should be placed in separate gangs, and if possible on a detached portion of the work. The control and supervision of works reserved for them should, as far as possible, be in the hands of persons they know, such as forest officers, resident missionaries or the revenue officers in charge of the tract. The immediate management should be entrusted to their own village headmen or to their natural leaders, whenever such persons are to be found, and are not proved incompetent. As to the kind of work to be provided the following may be mentioned: clearing out village tanks, digging wells in village sites and fields, improving village sanitation, constructing and repairing *nulla*-crossings, weeding fields, raising embankments and such like village improvement works. Severe tasking should not be enforced, but reliance should be placed more on the honesty of the people and the energy and the good sense of the local men in charge. As the people will be more or less personally concerned in the successful execution of the work, self-interest will here furnish to some extent a substitute for the safeguards that have to be adopted in the case of ordinary relief workers employed on works which to them are only a means to earn a wage. The works suggested need not be in every village at the same time. They may be in circles of four or five villages or even more as may be found expedient, the principle to be kept in view in forming the groups being that these people will not make a long journey from

their homes in order to obtain relief. The payment of wages should invariably be made by the supervising authorities, or under their personal inspection once a fortnight or at some such interval. While relief offered and pressed upon them through their own headmen would encourage the people to come forward, supervision and payment of wages by officers of Government or missionaries with whom they are familiar would constitute a check against abuse, dishonesty or neglect. Another very suitable form of work for these people is forest work, and the more of this that can be found the better. There are probably many things that the forest department would be glad to get done for which they cannot get funds in ordinary years, such as demarcation, or fire lines, forest roads or tanks, and the like. These might be carried out as relief works. It may also be possible to find employment in some places in cutting and collecting grass for fodder and in taking it down to the plains where it may be needed. If this could be done, two useful purposes would be served.

Measures to be taken in the rains.

488. If it is difficult to keep relief works open during the rains anywhere it is much more so in the hill and forest tracts. Such of the works as can be kept on may be continued; the rest should be all closed after the commencement of the monsoon. Selection of deserving objects of gratuitous relief among the workers must then take the place of the labour-test, and all persons who are likely to starve unless helped should be relieved gratuitously at their homes. Thus in the case of the able-bodied the village or village-centre works should come first, and gratuitous relief at a later stage when climatic conditions render the maintenance and supervision of works very difficult or impossible.

Reduced grain dole and wage permissible.

489. People of this description are accustomed at ordinary times to live partly on forest products, and there is no reason why they should cease to do so when on State relief. The dole on gratuitous relief need not therefore be the full code ration for such relief, but may be reduced to 1 lb. of grain. Considering their partiality for forest products, and the facilities they possess for gathering a sufficient quantity of them to satisfy the pangs of hunger for the time being by spending a few hours in the jungles, the dole should as far as practicable be in the form of dry grain instead of cash. This would compel them to supplement their forest dietary with the necessary quantity of grain. These principles should also be kept in view and given effect to as far as may be in the fixation of the wage for workers. Concurrently with the relief of the above kinds, full permission should be given to these people to gather, free of charge, edible products from Government forests, and fees on forest produce in which they trade should be reduced or remitted according to circumstances.

A strong and sympathetic establishment required.

490. A strong staff of relieving officers should visit the homes of the people in the acutely affected areas, so that all cases of severe distress may be discovered and succoured, and the people generally encouraged and induced to take advantage of the various kinds of relief kept ready for them. The *personnel* of the agency employed is a matter of great importance. For the evidence has established that if the officer in charge be a person who, by his free communication with them and by his sympathetic attitude towards them, has been able to win their confidence, they will readily work under him and be relieved at his hands, while they will shun and even run away from persons they do not know, or

who do not care to remove by kindly treatment their suspicions against all attempted interference with their customary existence. The degree of success attained in relieving these people by missionary gentlemen working among them has been very great. Instances have occurred of Government works having failed to attract, while works under missionaries have been crowded. Their aid and co-operation would thus be invaluable in all matters relating to the relief of distress among the aboriginal races, and should be utilised when forthcoming.

The necessity of having all relief measures fully organized before the rains commence.

491. The distress in hill and jungle regions generally comes to an acute pitch all at once during the rains, and it is just then that the distribution of relief becomes a task of immense difficulty. It is therefore a matter of the greatest importance that all the details of the relief organization should be carefully thought out and arranged during the hot weather, so that, when with the advent of the rains distress suddenly assumes large proportions, the officers in charge may be in a position to cope with it in an adequate manner. Neglect to take this precaution is likely to result in disaster.

SECTION IV.

SPECIAL RELIEF TO WEAVERS.

The weaver population.

492. Notwithstanding the competition of mill-made cloth, hand-weaving still continues to be an important industry in India giving employment to considerable numbers of people. Weavers working their hand-looms are to be found in every province, some of whom combine the profession of weaving with agriculture, or field labour, or some other occupation, while others do nothing but weave. As a class they are nowhere well-to-do, although their earnings in normal years suffice to give them a decent livelihood. The majority of them are in the hands of cloth merchants who finance them and take their finished articles in repayment of advances. At the Census of 1891, the number of persons returned as depending on "manufacture of textile fabrics and dress" in British India is 9,655,213.

Famine seriously depresses the weaving trade.

493. The effect of a calamity such as famine soon manifests itself on the weaver population. When the crops fail, the resources of the people at large are crippled, the customary demand for cloth is arrested, the weaving trade ceasing for want of a market to be a source of profit fails to be a means of support to those engaged in it, and the high price of food-grains induced by famine aggravates their depressed condition. As in the case of the poorer agricultural and the labouring classes, it then becomes necessary for the State to intervene and help the weavers by providing them with the means of earning a wage enough for their subsistence. The important question arises, what should be the mode of relief in their case; should they be employed in their own craft, or in some other form of manual labour?

Opinion of Famine Commission as to how weavers should be relieved.

494. Speaking of the artizan classes generally, the Famine Commission of 1880 remarked* that it was certainly desirable to relieve them in their own trades, if this could be done conveniently. "Weavers," the Commissioners said, "are the most numerous class among artizans who habitually require relief, and much employment has in

* Paragraph 185, Part I of the Report.

many instances been given to them in their own trade. The thread which is spun impoverished females in respectable families can be given to weavers to turn into by cloth at rates corresponding to those of the market, and the cloth thus woven can generally be disposed of in the relief houses and hospitals. If there is any surplus at the end of the famine it should be sent for sale to some distant market, so as not to interfere with the local sales and deprive the weavers of work when times begin to improve."

Economic advantage of trade-relief to weavers.

495. The Commissioners in another part* of their report pointed out that the circumstance that agriculture forms the sole occupation of the mass of the population, and that there is no other industry from which any considerable part of the community can derive its support, lies at the root of much of the poverty of the people, and of the risks to which they are exposed in seasons of scarcity. They added that "the complete remedy for this condition of things will be found only in the development of industries other than agriculture and independent of the fluctuations of the seasons." We agree in this view, and consider that under the exceptionally depressing circumstances of famine, protection of existing crafts in which the people find a means of support independent of agriculture, is a matter of considerable importance. In the absence of extraneous aid, many weavers are obliged under the stress of famine to fall off from their own trade; and of these, a considerable number never return to it, but sink into and swell the ranks of ordinary labourers. Any system of relief which accentuates this tendency, and by divorcing the weavers from their own trade aids in their absorption in the class of labourers, cannot be a desirable system to adopt. It inflicts some permanent injury on the country as the price of a small temporary convenience.

Hardship of ordinary relief when applied to weavers.

496. Again, considerable hardship is involved in sending to the ordinary relief works a class of people unaccustomed to work out of doors, who are generally unfitted by their physique and antecedent occupation for any kind of heavy manual labour. Weavers, especially those among them whose sole occupation is weaving and who make the finer kinds of cloth, acquire by constant work at their own trade a certain degree of skill and delicacy of touch which they are apt to lose when employed on outdoor labour, and they are thus incapacitated, at least for some time, for their usual work when distress subsides and with the return of favourable times their trade revives. The manufacture of cloth may not be so useful to the general public as road making and metal breaking, but utility ought not to be the only important factor in determining the selection of any particular class of work for purposes of relief. A no less weighty consideration is its adaptability to the conditions under which famine labour has to be organized, and its ultimate effect on the health and method of life of the section of the community for whose benefit the work is undertaken.

Consideration of the objections against the adoption of a system of trade-relief to weavers.

497. The introduction of any scheme of special relief has been objected to on the ground that it cannot be carried out without a large outlay, the bulk of which will never be recouped. But the same objection holds good as regards ordinary relief works. Weavers, when forced by privation to resort to such works, are seldom able to perform a sufficient task to secure them a wage large enough to maintain their working strength. One of two things must then happen, if they

* Paragraph 103, and also Part II, Chapter VI.

are to get a sufficient wage. Either such a wage must be given to them irrespective of the work they are able to do, or the task must be reduced to the level of their capacity, and whichever alternative is adopted the cost of the work done must bear a very unequal proportion to its real value. In some cases it has been estimated to be as low as three annas in the rupee; and when regard is had to the fact, which we have discussed in another part of our report, that the permanent utility of the ordinary relief works is in many cases inconsiderable, the real or effective value of the work turned out on them by the weavers is proportionately still further reduced. Another objection put forward to trade-relief of weavers is that the amount spent on wages, that is, on direct relief, bears only a small proportion to the expenditure on materials and establishment, and that this fact makes the immediate cost to the State much greater than in ordinary forms of relief. This consideration is no doubt of much importance when the demands on the public revenues to meet the cost of a wide-spread and severe famine can only be met with great difficulty. But even in such a case the weight of this objection could be greatly reduced, if not entirely removed, by carefully limiting the relief to those distressed weavers most unfitted for ordinary relief works, and by restricting the operations either entirely or as much as possible to the manufacture of coarse cloth, the materials of which are inexpensive.

Consideration of objections—continued.

498. It has further been said that great difficulty will be experienced in disposing of the stock turned out, in a market where it will fetch a fair price, and that in the meantime the manufactured goods accumulated will deteriorate. As to this, the experience of the recent famine, in so far as it may lend support to the objection, ought not to serve as a guide for the future. For, owing to a combination of unfavourable circumstances, such as the wide prevalence of distress in varying degrees of intensity all over the country, the dislocation of the trade by reason of the plague, and the occurrence of what is called the "*singhast*," or an inauspicious year for Hindu marriages (marriage being an occasion when cloth is in great demand), the trade in cloth was exceptionally dull throughout India during the recent famine. Such a combination is scarcely likely to recur in the future. Moreover, the manufacture may be restricted for the most part to such articles as can be utilised by Government in jails, hospitals, police and other departments, and to such coarse stuffs as are likely to find a ready sale at the close of the distress, or as could be bought by the charitable relief committees for free distribution to persons in receipt of State relief and others in need of clothing. As to the need for the free distribution of clothes during acute distress, there is a consensus of opinion among the witnesses who have spoken on the subject. At Sholapur, where a system of special relief by means of private charity was organized, the weavers employed were able to turn out the cloth used for clothing the police at a cheaper rate than that usually paid for it, and their blankets were utilised in the relief camp and poor-house hospitals. Again, a large expenditure has to be incurred in buying materials for hutting on relief works. In Bombay, in order to give employment to weavers, a kind of coarse cloth (*khadi*) was used instead of matting for huts in many places. In the opinion of the Bombay Government it did not prove "very suitable." Considering, however, that huts made of ordinary materials fall to pieces in course of transportation from place to place with the shifting of a camp, it seems possible that an attempt might be made to turn out a more suitable kind of stuff. The matter is of some importance, for if the experiment can be

made to succeed, it would be the means of giving considerable relief to the weavers without any extra cost to Government. Another objection urged is that the production of cloth on a large scale on behalf of Government would, by glutting the ordinary market, injuriously affect the very people for whose benefit the special relief is to be organized. The answer to this objection is that Government would only be helping to continue weaving, people who ordinarily weave and live by so doing. Moreover, if there is a contraction of the demand during a famine, this is generally followed by an expansion at the return of prosperity. People who had to stint themselves during the famine, or to go without clothes owing to the hard times, in fact the great mass of the population, would, on the re-establishment of the normal state of things, find the necessity for supplying themselves with new clothes. This eventual increased demand would, to a considerable extent, absorb the increased supply resulting from the system of special relief, and as we have already shown there are many means by which the Government itself would utilise the outturn during the progress of the famine. We do not think the stock that would be accumulated under relief operations, restricted as we consider they should be restricted, would be so large as to be incapable of being worked off without materially depressing the market.

How the special establishment necessary for trade-relief operations should be arranged for.

499. For the successful carrying out of a scheme of relief to weavers, establishments of a special kind possessing knowledge of the craft and ability to test the products, would no doubt be required. But the weavers to be relieved will generally be found in towns with municipal committees. What could not conveniently be done by Government, especially in a period of extreme famine when the administrative staff is tried to the utmost, could be done by municipal bodies, acting under the general control and supervision of officers of Government. These bodies would generally be found to include representatives of local dealers in cloth, and where such representation might be wanting, some experts in the trade could be associated with the committee in the work. The necessary technical knowledge would thus be secured for the efficient management of the business. Where municipal committees do not exist, specially qualified unofficial helpers can be secured from the ranks of cloth merchants, of whom a sufficient number will be found in most places where the weavers form a considerable section of the community.

Trade-relief properly conducted is not objectionable.

500. The conclusion we arrive at after a careful consideration of all the evidence is that a scheme of special relief hedged round by careful precautions, managed on business-like principles, and generally carried on in a cautious manner so as to keep the sphere of operations and the output of cloth within reasonable bounds, is not open to any of the objections that are generally urged against this mode of relief, and that such a scheme is not likely to result in a greater loss to Government than in employing the weavers on such uncongenial work as is available on the ordinary relief works, or in giving them semi-gratuitous relief.

Existing codes on special relief to weavers.

501. All the existing provincial famine codes, except that for Burma, have provisions for special relief to weavers in their own craft. Effect was given to them on an extensive scale in Madras, and on a more limited scale in the Central Provinces, Bombay and Bengal. Much also was done to relieve weavers by the committees of the

Indian Famine Charitable Relief Fund, by missionary bodies, and by other charitable agencies in all the affected provinces.

Special relief operations in Madras.

502. The weavers in the Madras presidency, though living in tolerable comfort in ordinary years, are not possessed of sufficient capital to carry on their calling on their own account, and have to depend upon advances made to them by cloth merchants who are repaid in manufactured articles. During the late famine, the demand for cloth being very dull, the customary advances and orders for cloth were withheld, and the weavers were thrown out of work. To provide employment for them, weaving operations in accordance with the provisions of sections 128 to 132 of the Madras code were organized in the four Deccan districts and in Ganjam and Vizagapatam. An interesting and instructive report of what was done in the Deccan districts by the Deputy Collector on special duty is given in the second volume of the Madras famine report. It contains information which may be useful to other Governments when considering how relief to weavers may best be given. The system followed corresponded with the task-work system as obtaining on ordinary relief works, the management being entirely official. The self-acting tests regulating admission to ordinary works being from the nature of the case inapplicable here, the recipients of relief were selected after personal enquiry into their circumstances. Those admitted were kept engaged in making certain specified kinds of cloth, selected in consideration of the facility with which they could be utilised by Government for its own use or sold to the public. A limited and weighed quantity of yarn and cash for paste etc. were advanced, and in return articles answering the samples as regards quality, texture, dimensions and weight were accepted. Task-tables for each kind of article selected for manufacture were prepared on the basis of the special relief officer's personal observation of the process of weaving and of enquiries made from experienced weavers and respectable cloth merchants. Wages so calculated as to allow the C. class wage of the code to the number of persons necessary according to the sanctioned task-tables to make up in one day the raw material into the article ordered were paid to the workers. As on ordinary works, the wage varied with the price of the food grains taken as the basis of calculation. The wage given being so fixed as to be a bare subsistence for those actually engaged in weaving and its subsidiary processes, non-working children and incapable dependants were gratuitously relieved. The establishment consisted of two departments, (1) the appraising and (2) the paying department. The appraisers were practical weavers or cloth merchants who received, verified, measured and stored the goods. The paying department issued the raw materials and made payments. The relief given, as we have stated elsewhere, represented an average employment of 30,000 weavers for 6½ months, at a gross outlay of 11½ lakhs, or approximately 3 annas per head per day. If the stock should realize half this sum, as is anticipated, the net cost will not have been excessive.

Special relief operations in the Central Provinces.

503. Excepting agriculture, the only other industry of any importance in the Central Provinces is weaving; and a considerable proportion of the weaver class here, consisting of Mahars, combine other occupations with weaving. Special relief to weavers from Government funds was organized only in the towns of Nagpur, Kamptee and Umrer, in the Nagpur district, and was confined to those whose sole means of livelihood is weaving,—Kosthis (Hindus) and Momins (Mahomedans). The

system followed was somewhat different from the Madras scheme. To begin with, the management was in the hands of a committee specially constituted for the purpose, which included some of the local cloth merchants and had for chairman the Vice-President of the local municipality, while the Secretary was the officer placed in charge of this relief by Government. The benefit of the relief was extended only to those who, after due enquiry, were found to be in absolute want of it, the principle kept in view being that the persons to be admitted should not only be destitute, but should also be incapable of gaining a livelihood on the ordinary relief works. The committee dealt with the finished article and had nothing to do with its manufacture. Orders were given for certain kinds of cloth, and when complied with payments followed according to the valuation made by the committee assisted by a paid expert. Following the usage of the trade obtaining in the district, the weavers relieved were given employment through the agency of the middlemen, who were their customary employers, the agreement between the latter and the Government being that they were only to employ the people selected by the officer in charge of the relief, and to remunerate them at rates fixed by the committee. These rates were the customary rates slightly enhanced in view of the dearness of grain. The price paid included a small margin of profit for the middlemen, and was so adjusted as to permit of a wage enough for the support of the weaver and his family being earned only on the performance of a task which a man of ordinary skill and diligence could do in a fixed time. This precluded a larger wage than a subsistence wage being earned, and to attain this result the orders for cloth were also regulated. The number of weavers in the Nagpur district according to the last census is sixty thousand, of whom about twenty-two thousand are to be found in the town of Nagpur. The maximum number relieved was 7,849, or about 13 per cent. of the total weaver population, the total number of units in terms of one day being 595,120. The amount of advances given and the value of cloth received were Rs. 85,816 and Rs. 83,743, respectively. The whole of the stock has been sold, the sale realizing Rs. 77,139, or 89 per cent. of the advances or 92 per cent. of the estimated value of the cloth. The net cost of the relief has thus been Rs. 8,677, which gives an incidence of 2·8 pies per unit relieved. The cost of relief on Public Works Department works in the province was 1·8 annas per day unit. The average wages earned were 2 annas for a man, $1\frac{1}{4}$ annas for a woman, and $\frac{3}{4}$ths of an anna for a boy. Regard being had to the fact that the weavers thus relieved in their own trade could at the best have performed a very light task on the only kind of work provided in the Nagpur district, *viz.*, metal breaking, the special relief has proved more satisfactory and less expensive than if these people had been relieved in the ordinary way. The local Administration considers the scheme to have succeeded well.

Special relief operations in Bombay.

504. A somewhat prominent feature of the distress in the Bombay presidency was the large number of weavers in need of relief. Under section 151(*a*) of the local famine code it was the intention to provide employment for them in their own craft. But the Bombay Government thought the number likely to ask for such employment was so large that the organization of relief in strict accordance with the provisions of the code was beyond the range of what was practicable. It accordingly applied to the Government of India and obtained sanction to amend the section of the code so as to limit the special relief

to such weavers as would be "deemed incapable of gaining a livelihood on the ordinary relief works". While recognising that there must be some limitation as to the classes of weavers who should be relieved in their own trade, and that the old provision of the Bombay code, under which trade-relief was contemplated in every case, needed amendment, we think that the section as it now stands goes too far in the opposite direction, inasmuch as it is capable of being construed into an absolute denial of special relief. And practically this is what happened in Bombay. Funds were placed at the disposal of the Collectors to enable them to give effect to the new section of the code, but except in Sholapur, where the Collector undertook on behalf of Government to share the cost of the relief of weavers employed by the local municipality, no expenditure from these funds was incurred. It was thought, however, that what could not be done by Government on a large scale could be done by municipal committees on a moderate scale; and the Government of India at the suggestion of the Bombay Government passed an Act to empower local bodies to borrow for such a purpose. Only the three municipalities of Yeola, Sholapur and Gokak took advantage of the Act and gave relief to distressed weavers. The number thus helped was comparatively small, but the operations so far as they went were, in the opinion of the Bombay Government, carried out with perfect success. The total expenditure came to about Rs. 39,000, out of which a little over half has been recouped by sale of cloth. As the stock in hand has been valued at about the same sum, it is expected that the operations when brought to a close may possibly yield a small profit. The system followed was to give orders for certain kinds of cloth, and when they were complied with payment was made on the basis of a previously settled rate for a certain length of each kind of cloth woven. At Sholapur the men earned from $2\frac{1}{2}$ to $3\frac{1}{2}$ annas, women from $1\frac{1}{4}$ to $1\frac{3}{4}$ annas, and children $\frac{3}{4}$ths of an anna per day.

Special relief operations in Bengal.

505. The Bengal statement of expenditure on famine relief shows in the aggregate a sum of Rs. 23,810 as spent under the head of "special relief to artizans" in ten districts. Particulars have been obtained only of the operations carried on in the district of Manbhum. Relief in both forms, namely by payment of wages for work done and by purchase of cloth ordered, was given in this district to about 2,000 people. Rs. 6,994 was spent, out of which Rs. 1,121 has been realized by sale of the products. The balance represents the value of cloth in hand and has yet to be recouped. The operations were mostly in charge of the Rev. Mr. A. Campbell of Pokhuria. Cotton-spinning on a considerable scale was carried on under his supervision, and the thread produced was made over to weavers. Thus while supporting the weavers, he also supported many poor women who could not have earned a living on the relief works. Cotton-spinning as a home industry is on the wane, but still there is a possibility of fostering it during a famine in connection with special relief to weavers.

Relief given to weavers from the Charitable Fund.

506. Relief administered through the agency of the various charitable organizations that existed in most of the affected districts was as extensive as it was successful. The Indian Famine Charitable Relief Fund helped about 26,000 families of weavers at a cost of about a lakh and-a-half. In some cases money was advanced to buy materials, in others materials themselves were given, the finished work being taken over by the fund. Here one of the main difficulties of this form of relief,

namely the accumulation of stocks, did not present itself. Many of those in receipt of Government relief were found very badly in need of clothing, and the clothes manufactured by the weavers in return for wages or advances given were distributed in charity among these people, and thus did an immense amount of good.

The systems followed in the different provinces compared.

507. Of the two systems of employing weavers, the Madras system of task-work seems the more costly. A larger and a more elaborate establishment is needed to work it. Moreover, the task is difficult to fix, and even when fixed, it is no less difficult to fix the wage by taking into consideration the work done and the time occupied in doing it by each of the persons by whose united labour the cloth is produced. The settlement of account of materials advanced and of cash paid for paste and subsidiary processes also involves some complicated calculations. Further, the adjustment of account and the payment of the wage and the advance of fresh materials involve delay, and the people had sometimes to wait for six or seven days before they could go back to their work and begin again to earn a wage. The payment-by-result system, on the other hand, is merely an adaptation of the practice as it actually obtains in the trade, and is thus readily understood and appreciated by the people concerned. It is also much simpler to work and costs less in establishment and in other ways. The argument advanced against the adoption of the piece-work system in the case of acutely affected areas has no application here, for the weavers are to be employed on work which is congenial to them, and in which they will not experience those hardships and discomforts which are inseparable from life on ordinary relief works. The dealings may be either with the weavers direct or through middlemen where they exist. In the latter case the usual trade relations between the two classes will not be disturbed. The middlemen will only employ such weavers and pay them at such rates as will be approved by Government. They would continue to advance yarn and pay the workers for finished goods, and the Government would take these goods off their hands at prices previously agreed on. This system has not yet been worked on anything like the scale the other system was worked in Madras, and until it is fully tried, it is somewhat difficult to say whether it would bear the strain of large operations, and would be equally successful as an instrument of relief. But it certainly deserves a full trial. As regards the Madras system, the Madras Government has now acquired considerable knowledge of the subject, and when next a serious famine in that presidency has to be combated it should be in a position to undertake special relief for weavers at smaller expense than was incurred on the late occasion when its officers had to feel their way.

Recommendations.

508. The experience that has been gained suggests the following rules which we recommend for adoption in the provincial famine codes :—

I. Distressed weavers shall, if possible, be given special relief in their own craft if their sole occupation is weaving, and if they are deemed—

(*a*) unfitted by the practice of their profession and hereditary habits for hard out-door labour, or

(*b*) physically incapable of earning a sufficient livelihood on the ordinary relief works, or

(*c*) not susceptible to the ordinary labour-test on such works without risk of impairing or injuriously affecting their manual skill or delicacy of touch necessary for the successful carrying on of their own craft, or without otherwise endangering their connection with their own profession.

II. Special relief shall only be organized in localities where the weavers are found congregated together in considerable numbers in the same town or village, or in a group of adjacent towns or villages.

III. The admission to special relief shall be controlled on the basis of personal enquiry and knowledge of individual circumstances as ascertained by such enquiry.

IV. The operations shall be placed under the control of a specially qualified official, who should, as far as possible, have associated with him members of municipal committees where they exist, and respectable non-official cloth merchants or other experts in the trade.

V. Persons admitted to the relief shall be remunerated either by wages on the performance of a prescribed task in accordance with the wage scale applicable to the case of ordinary relief workers, or by purchase at current rates of cloth woven in pursuance of orders given. If these rates are so low that a weaver cannot support himself and his family on them under the abnormal state of things due to famine, they may be raised as may be deemed necessary.

VI. When special measures for the relief of weavers are not instituted, they should be employed on light work, as carrying earth or digging soft soil, and should, as far as possible, be specially ganged and tasked in careful relation to their strength, usual occupation, and mode of life.

Under what circumstances trade-relief should have preference over ordinary relief.

509. We are of opinion that so long as the net cost of trade-relief to weavers (to the limited extent we propose) is not likely to exceed very materially, either (*a*) the net cost of relieving the same people by employment on ordinary relief works, or (*b*) the cost of relieving them by gratuitous village relief, preference should be given to the trade form, in spite of the objection based upon the inconvenience of the larger initial expense. Our reasons are as regards (*a*), the reasons of policy and humanity already indicated, and as regards (*b*) that to support in idleness a number of weavers capable of working at their trade, would be demoralising to themselves and to their neighbours.

Municipal Committees engaging in trade-relief to weavers.

510. As to the question of municipal bodies engaging in such trade relief operations and bearing their cost in whole or in part, we recommend that the law governing their powers and obligations should be assimilated in all provinces. The Acts governing the constitution of municipal committees in Bombay, Burma, the Central Provinces and the Punjab, expressly include famine relief as an object on which municipal funds can be expended, while no such provision is found in the law of the other provinces. Where power to devote municipal money to famine relief exists, Act XII of 1897 now gives the necessary authority to borrow when the ordinary revenues of the committees do not suffice for the purpose. Considering that most municipalities are not likely to be in a financial condition to undertake

unaided trade-relief operations for weavers, we think that whenever the institution of such relief is deemed expedient, Government should assist municipal committees who undertake it, either by sharing the initial advances and net losses, or by partly recoverable loans, leaving the profit or loss to the borrowing authority.

Charitable Relief Fund to be linked with State trade-relief organizations.

511. We would add that any weaver trade-relief organization conducted by State or municipal agency at the expense of public funds ought always to be linked with the Famine Charitable Relief Fund of the province to this extent, that the managers of the Fund should be induced to agree to buy cloth and blankets for charitable purposes from such organization in preference to buying in countries or districts not affected by the famine.

SECTION V.

UTILISATION OF PRIVATE CHARITABLE CONTRIBUTIONS.

Ample scope for private charity outside State relief.

512. During the famine of 1877 in Southern India, a sum of something like £700,000 sterling, equivalent then to about eighty lakhs of rupees, was raised in England to be applied in India to the alleviation of distress caused by the famine. The application of this money led to a correspondence between Lord Lytton's Government and the Secretary of State, which terminated with Lord Cranbrook's Despatch No. 46, dated the 16th May 1878. In the course of that correspondence it was laid down that "the Government is responsible, as far as may be practicable, for the saving of life by all the available means in its power," and that "it is not proper or expedient that the Government should ask for private subscriptions to supplement its own expenditure on famine." The Famine Commissioners of 1880 after a consideration of the above correspondence recorded their opinion on the subject in paragraphs 187 and 188 of the first part of their report. They remarked :—

"Under the system of Government relief which recognises the responsibility of the State to provide for all who really require relief, there does not appear to be any reason for making an appeal to the public to aid the Government by their contribution . . . . Such full responsibility having been accepted, the spontaneous contributions of private persons, given for the purpose of supporting the lives of the famine-striken, are as much out of place as they would be in meeting any other public charge ; though something might still be done towards supplementing the subsistence ration of Government with small comforts, especially in the case of hospital patients, of orphans, and of the aged and infirm, and any charitable assistance of this kind should be welcomed and encouraged, provided it is so administered as to work in with the Government organization and system. But when the famine is coming to an end there is a wide and useful sphere for private charity in restoring the sufferers, as far as possible, to their original position, or in giving them a little capital with which to start again in their old modes of life . . . . The State cannot properly expend the money raised by taxation on such objects, though it may certainly lend its officers to assist in the work of distributing charitable contributions in the most useful way."

Definition of objects to which private charity may be applied as auxiliary to State relief.

513. When towards the close of 1896 India was threatened with a famine more wide-spread than that of 1877-78, the sympathies of the British public were deeply stirred, and the Lord Mayor of London and others in England addressed the Secretary of State with a view to the opening of subscription lists for the relief of the impending distress. In a Despatch No. 64, dated the 23rd December 1896, the Government of India expressed their adherence to the principles laid down by

Lord Lytton's Government in 1877 in the following words "to invite subscriptions which are to be spent in the performance of a task for which we have undertaken the responsibility would be to invite them for the relief of the Indian exchequer—an end towards which we could neither ask nor receive contributions with propriety." The despatch, however, went on to say that there was ample scope for the operation of private charity outside the task of saving people from starvation. It explained that in spending the money of the tax-payers, the Government has to regulate its action by some fixed rules to prevent waste and misapplication, and to satisfy itself by some self-acting tests, or by some special enquiry through its officers, that relief is really needed; that it also has to limit the relief to what is absolutely necessary for the preservation of life, and to obtain from those applying for relief (with due regard for sex, age, infirmity and the customs of the country) some return for the relief given. Such a system, it was added, however necessary in the interests of the public purse, can at best afford only partial relief. There still remains a very wide possible margin of suffering and distress, in the relief of which private charity may find an ample field of usefulness. Guided by these considerations, the Government of India thus defined the objects to which private charity may legitimately be applied as auxiliary to State relief:—

Firstly, in supplementing the subsistence ration which alone is provided from public funds, by the addition of small comforts, whether of food or of clothing, for the aged or infirm, for the patients in hospitals, for children, and the like.

Secondly, in providing for the maintenance of orphans.

Thirdly, in relieving the numerous poor but respectable persons who will endure almost any privation rather than apply for Government relief, accompanied as it must be by official enquiry into, and by some kind of test of the reality of the destitution which is to be relieved.

Fourthly, in restoring to their original position, when acute distress is subsiding, those who have lost their all in the struggle, and in giving them a fresh start in life.

514. The question of the organization through which charitable relief should be systematized and distributed also received attention. The principles adopted were that when Government undertakes such a gigantic task as the saving of life amongst a vast population smitten with the full force of a grievous famine, it should have the ultimate direction of whatever volunteer agency may be organized for the collection of private subscriptions and their application to the mitigation of distress. This is necessary, (1) to secure the efficient administration of the fund; (2) to inspire confidence in the public and thus to stimulate the flow of charity; (3) to obviate the clashing of State with charitable relief; and (4) to prevent friction and confusion likely to result from the existence of two agencies, working side by side but independently of one another. Subject, however, to this general control, the appeal for aid should proceed from and the collection of funds and provision and distribution of relief should rest with committees, which should in the main be non-official in their character. While the district officers must of necessity be the backbone of these committees, the active aid and co-operation of the non-official public should be utilized to the fullest possible extent in their formation and working. Charity to their poor and suffering neighbours is ingrained in the Indian character, and at no time is this feeling evoked in a higher degree than when universal distress overtakes the land. A system which does not assimilate and assign its proper place to this most valuable and trustworthy unpaid agency is not only unsound in principle but distincty

Principles to be kept in view in organizing the distributing agency.

wasteful. Success is best assured and attained when the two elements, official and non-official, are found to work together in harmonious collaboration.

Response to the appeal to private charity and the organization for its distribution.

515. The response to the appeal ultimately made was a fund of unprecedented and colossal magnitude. Besides this, large gifts of grain and clothing were also received. The machinery to administer this fund was constituted in recognition of the principle of Government control and of sympathetic co-operation between the official and the non-official classes. The non-official members were drawn from all castes, creeds and professions, and full use was made of missionary bodies and other pre-existing charitable associations with objects similar to those of the fund. The following is a summary of the organization constituted:—

I. (*a*) A general committee for the whole of India with representatives from each province affected by famine.

(*b*) A central executive committee, nominated by the general committee, and invested with full powers of administration, including receipt of moneys transmitted from England and other countries and also moneys subscribed in India, the apportionment of these moneys among the affected provinces according to their needs, and the arrangements for distribution of relief in accordance with the principles laid down by Government and accepted by the general committee.

II. Provincial committees for the affected provinces, with executive committees appointed by them for the receipt of moneys allotted by the central executive committee, and also of moneys subscribed locally, for their distribution among the district committees, for general supervision over the action of these committees with a view to ensure the application of the fund to its prescribed objects, and for the transaction of all other business of the provincial committees.

III (*a*) District committees for the affected districts, for the detailed administration of the fund, the institution of measures of relief, and the disbursement of moneys placed at their disposal.

(*b*) Sub-committees under the district committees to deal with local areas which, owing to the severity of the distress or any other cause, called for special organizations to meet their wants.

Success of the organization in effecting judicious distribution of the fund.

516. This scheme of organization, which placed the responsibility for the actual administration of the fund on the local committees, who alone were in a position to act with local knowledge and therefore with effect, while the central committee laid down the general principles of action, was eminently calculated to secure the judicious and efficient distribution of the relief in accordance with the varying needs of the people in the different affected provinces and tracts.

Summary of the various modes of relief as actually employed by the fund committees.

517. The various modes of relief as actually devised and put into operation in furtherance of the four prescribed objects of the fund may be thus summarized:—

Under object I.

(*a*) Giving small comforts, such as milk, vegetables and other articles of diet, and extra meals to persons in Government poor-houses and kitchens and on relief works.

(*b*) Making money grants to supplement the Government wage on relief works, and the Government dole to persons on gratuitous relief.

(*c*) Providing meals for children and aged and infirm persons on or about relief works.

(*d*) Giving medical comforts to patients in hospitals attached to poor-houses and relief camps.

(*e*) Employing attendants in addition to the ordinary staff allowed by Government to nurse the sick and the infirm and to look after young children of relief workers while their guardians were at work.

(*f*) Giving clothes and blankets to persons in receipt of Government relief.

(*g*) Distributing quinine and other medicines.

(*h*) Maintaining poor-houses and kitchens in places where Government poor-houses and kitchens did not exist.

(*i*) Relieving distressed wanderers.

Under object II.

(*a*) Maintaining orphans and giving subsidies to private orphanages.

(*b*) Giving clothes, blankets, extra meals and medical comforts to orphans, and meeting the cost of their education or training in useful crafts.

(*c*) Providing for the maintenance and education of orphans left on the hands of Government at the end of the famine.

Under object III.

(*a*) Giving money or grain doles to poor but respectable persons, and to *parda nashin* women, not in receipt of Government relief.

(*b*) Supplementing the Government dole to persons of the above class who were in receipt of Government relief.

(*c*) Giving clothes to persons of the above class.

(*d*) Providing work for them at their homes in the shape of embroidery, sewing, cotton carding and spinning, corn-grinding and paddy husking, etc.

(*e*) Providing employment in their own craft for artizans, supplying them with money or materials, or both, and buying their finished articles, or giving them wages for work done.

(*f*) Supplying wholesome food-grain at cheap rates in fixed quantities from shops or depôts specially opened for the purpose to respectable persons of small means, who, though suffering great privation owing to the high prices, would not accept charitable relief.

Under object IV.

(*a*) Aiding broken-down artizans to start afresh in their own occupations.

(*b*) Giving seed-grain, plough or well bullocks and implements of husbandry to the most impoverished agriculturists to prevent them from being forced to take loans on onerous terms, or to meet their inability to provide the security to obtain loans.

(*c*) Supplying food for agricultural cattle.

(*d*) Giving subsistence allowances to agriculturists who had come to the end of their resources and had no property or credit left to enable them to arrange for the support of themselves and their families during the interval between the sowing and the harvest.

(*e*) Giving valedictory doles to relief workers and recipients of gratuitous relief on the close of Government relief, and grants for repairing or rebuilding houses.

Receipts and expenditure of the fund.

518. Up to 12th March 1898, the date of dissolution of the central executive committee, the receipts came to Rs. 1,70,27,540, the details being as follows :—

			Rs.
Subscriptions received by the central committee ...			1,46,23,295
Interest received by the central committee on Government promissory notes in which a part of the fund has been invested			14,725
Receipts by the provincial committees—			
	Rs.		
Local subscriptions ...	20,93,705		
Miscellaneous ...	2,95,815	...	23,89,520
Total ...	23,89,520		
GRAND TOTAL ...			1,70,27,540

The consolidated expenditure of the central committee up to the date of its dissolution, and that of the provincial committees up to 31st January 1898, amounted to Rs. 1,62,00,576, the details being as under :—

	Rs.	Rs.
Central committee's expenditure—		
Cost of relief and office expenditure, etc.	43,360	
Cost of purchase of Government paper of the nominal value of Rs. 7,89,800	7,77,476	8,20,836
Provincial committees' expenditure ...		1,53,79,740
TOTAL ...		1,62,00,576

The balance was thus Rs. 8,26,964, of which the central committee held Rs. 11,024 and the provincial committees the rest.

Constitution of the unspent balance of the fund into a trust-fund for relief of distress in future famines.

519. Out of the investments of the nominal value of Rs. 7,89,800, Government paper of the nominal value of three lakhs of rupees was made over to the Administration of the Central Provinces for the maintenance of orphans left on its hands, and the whole of the balance with the North-Western Provinces and Oudh committee, amounting to Rs. 2,94,489, was handed over to the local Government for a similar purpose. Thus, at the close of the operations, there was left with the central committee Government paper of the nominal value of Rs. 4,89,800 and cash Rs. 11,024. These securities have been constituted into a trust-fund for relief of distress in future famines, its control being vested in a committee of which the Chief Justice of Bengal is the *ex-officio* Chairman, and the Comptroller General the Treasurer. Refunds of unspent balances by the provincial committees will as they come in, be added to the trust-fund.

Receipts and expenditure of the provincial committees.

520. The following table shows the receipts and expenditure of the various provincial committees :—

Province.	Grants from the Central Committee, exclusive of grant for orphans.	Local receipts.	Total receipts.	Expenditure.	Balance.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
North-Western Provinces and Oudh.	46,99,192	4,82,824	51,82,016	48,87,527	2,94,489
Central Provinces ...	33,07,191	1,23,291	34,30,482	33,65,163	65,319
Bengal ...	14,69,847	6,20,468	20,90,315	20,65,636	24,679
Bombay ...	13,64,250	3,04,836	16,69,086	14,84,950	1,84,136
Madras ...	12,97,923	2,85,639	15,83,562	14,25,412	1,58,150
Punjab ...	8,64,583	3,65,240	12,29,823	11,73,822	56,001
Central India ...	3,50,050	1,00,069	4,50,119	4,38,077	12,042
Burma ...	3,06,000	16,671	3,22,671	3,09,266	13,405
Berar ...	1,10,000	90,478	2,00,478	1,92,759	7,719
Rajputana ...	17,122	*Nil*	17,122	17,122	*Nil.*
Baluchistan ...	20,000	*Nil*	20,000	20,000	*Nil.*
TOTAL ...	1,38,06,158	23,89,516	1,61,95,674	1,53,79,734	8,15,940

Details of provincial expenditure under the four prescribed heads.

521. The following table gives the details of provincial expenditure under the four prescribed heads :—

Province.	Object I.	Object II.	Object III.	Object IV.	Miscellaneous.	Total (including annas and pies).
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
North-Western Provinces and Oudh.	2,63,594	24,399	9,86,296	35,88,289	24,947	48,87,527
Central Provinces ...	2,15,775	32,857	1,53,285	29,42,791	20,453	33,65,163
Bengal	2,34,908	40,166	8,89,983	8,69,578	31,000	20,65,636
Bombay	1,99,272	14,127	1,89,701	10,76,782	5,066	14,84,950
Madras	36,349	20,495	1,17,134	12,44,088	7,344	14,25,412
Punjab	14,747	3,719	2,56,290	8,85,431	13,633	11,73,822
Central India	21,143	9,380	34,806	3,72,115	631	4,38,077
Burma	8,946	...	410	2,99,424	486	3,09,256
Berar	58,330	7,318	53,933	71,007	2,168	1,92,759
Baluchistan	...	...	...	20,000	...	20,000
Rajputana	7,201	1,346	1,451	7,122	...	17,122
Total ...	10,60,270	1,53,812	26,83,293	1,13,76,632	1,05,731	1,53,79,740

Adding the two allotments for orphans, aggregating Rs. 5,94,489 referred to in paragraph 519 and the central committee's own expenditure of Rs. 43,360, the grand total of expenditure on relief and on working charges comes to Rs. 1,60,17,589, out of which the expenditure on actual relief has been Rs. 1,58,68,498, or a little over 99 per cent., of the whole.

State expenditure and charitable fund expenditure compared.

522. In the following statement is compared the direct State expenditure on relief, exclusive of loans and advances to the land-holding classes, and the expenditure from the charitable fund:—

Province.	State expenditure.	Fund expenditure, including grants for orphans.	Percentage of column 3 on column 2.
1	2	3	4
	Rs.	Rs.	
North-Western Provinces and Oudh ...	1,98,47,829	51,82,016	26·1
Central Provinces	1,56,10,739	36,65,163	23·4
Bengal	1,08,03,757	20,65,636	19·1
Bombay	1,26,36,802	14,84,950	11·7
Madras	98,27,637	14,25,412	14·5
Punjab	22,34,004	11,73,822	52·5
Burma	11,85,594	3,09,256	26
Berar	5,74,875	1,92,759	33·5
TOTAL ...	7,27,21,237	1,54,99,014	21

Loans and gifts to agriculturists from State and charitable funds respectively.

523. In the following statement is compared the loans to agriculturists for seed, bullocks, implements and subsistence under the Agriculturists' Loans Act and the gifts for the same purpose made from the charitable fund:—

Province.	State loans.	Gifts from the charitable fund as per figure under object IV, excluding aid to artizans.
1	2	3
	Rs.	Rs.
North-Western Provinces and Oudh ...	23,73,407	35,46,625
Central Provinces	15,69,196	29,16,555
Bengal	11,35,872	8,29,072
Bombay	15,17,503	10,60,284
Madras	10,07,881	12,43,946
Punjab	11,54,490	8,56,569
Burma	1,81,905	2,99,424
Berar	15,802	71,007
TOTAL ...	89,56,056	1,08,23,482

Number of persons relieved from the fund.

524. The following statement shows the number of persons relieved from the fund under each head in the different provinces :—

Province.	From commencement to 31st October 1897.			
	Object I.	Object II.	Object III.	Object IV.
1	2	3	4	5
North-Western Provinces and Oudh.	407,936	3,587	153,328	447,588
Central Provinces	351,662	6,237	25,041	258,809
Bengal	270,086	8,202	194,678	246,328
Bombay	180,449	1,256	87,141	164,615
Madras	24,108	708	234,389	161,952
Punjab	8,367	7	78,117	58,115
Central India	15,155	...	7,763	23,979
Burma	18,174	...	4	41,920
Berar	61,885	1,647	21,886	28,157
Rajputana	4,980	313	600	286
Baluchistan	...	...	...	715
Total ...	1,342,802	21,957	802,947	1,432,464
Add—Approximate number relieved from 1st November 1897 to end of operations.	200,000	5,000	30,000	108,000
GRAND TOTAL ...	1,542,802	26,957	832,947	1,540,464

Operations of the fund, the good it has done and the gratitude it has evoked.

525. The figures given in the preceding paragraphs, which have been abstracted from the report of the central executive committee, go to show that great as has been the effort made to combat the famine and avert its consequences by the Government, it would in itself have been incomplete and inadequate to the results actually attained, if it had not been supplemented by the aid from the charitable fund. Testimony is unanimous and overwhelming as to the incalculable good it has done as an auxiliary to the State systems of relief, and the universal gratitude it has evoked among the people. Seventy-one per cent. of the fund has been spent in giving a fresh start in life to peasant cultivators and small land-owners, who had been forced to eat their seed-grain and part with their plough-cattle, or whose plough-cattle had died for want of fodder, and who had no agricultural resources left, nor credit wherewith to procure them. But for the timely aid from the fund, those who were thus helped would have been unable to take advantage of the favourable season of 1897, and many of them would have sunk into the condition of landless labourers. Apart from the personal benefit to the recipients of the aid, the economic advantage to the country generally from this rehabilitation of a large section of the most important class of the

community at a crisis of the agricultural season has been immense. The bulk of the residue was spent in giving clothes and blankets to relief workers, and to recipients of gratuitous relief and orphans, and doles to *parda nashin* women and respectable persons in distress who could not owing to their social position and national custom take advantage of State relief. A comparatively small sum was devoted to supplementing the Government ration in poor-houses and the code wage on relief works. It is intended to devote the bulk of the allotments set aside for orphans to the bringing up in a decent way of life of the residue of children left on the hands of Government at the close of the famine. The charitable fund has thus distributed in relief a little over a fifth of the direct expenditure from the public revenues, while, as regards the agricultural classes, its gifts to enable them to recover from the blow the famine had dealt them have exceeded the loans for the same purpose from public funds by nearly nineteen lakhs of rupees. While helping to supply subsidiary wants which could not be furnished from the public revenues, the operations of the fund committees have not, except to an inappreciable extent, displaced State relief. How powerfully and successfully the fund has operated to soften the sharpness of distress is best expressed in the following words of the central committee's report:—

"The number of cultivators alone, with their families dependent upon them, who have been assisted with grants of seed-grain or cattle in 1897, is returned at nearly 1½ millions, a figure which is probably under the mark. In one tract alone (the Central Provinces) the area of land cultivated, thanks to donations from the fund, is put at a million and a half acres, equivalent to 1,748 square miles, according to estimates made by the officers of Government themselves, that is to say, land which the present owners had no means at their command to cultivate. These examples prove, it is thought, how valuable a work has been done. Large sums from the fund have certainly been spent, as many subscribers no doubt wished and expected, in feeding the hungry, mainly wanderers or those whose caste prejudices or social position led them to prefer death by starvation to accepting Government relief, for Government gave work or even gratuitous relief with an unstinting hand, in clothing the naked, a duty which Government cannot undertake at all, in selling grain cheap to respectable persons and so enabling them to pursue their ordinary callings and tide over the time of scarcity, in giving work to weavers and artizans or to poor women, for whom the relief works were unsuitable, and also in providing homes and maintenance until they come of age for several thousand orphans, for whom no friends willing to adopt them could be found. But all these measures of benevolence, carried out as they were on an unprecedentedly large scale, fade into insignificance by the vast numbers of peasants set once more upon their feet. . . . . .
The central committee may add that great as was the sum entrusted to them to distribute, and incalculable the good which has been effected by it, the distress was also so gigantic that they could have usefully spent a larger amount, without any danger of pauperising the people."

526. Experience gained in the administration of the fund has disclosed some imperfections in the statement of its objects. While in some respects the statement lacks precision and so allows overlapping with State relief, in other respects we think it needs to be widened so as clearly not to exclude certain forms of relief not mentioned in it, but which were used in the distribution of the recent fund, and may in our opinion be properly used again. To attempt by too rigid a definition to prevent all overlapping would do more harm than good by hindering the free action and discretion of the committees to whom the contributing public must always entrust the administration of the fund. The committees must on each occasion of a fund being raised be the real authorities to decide. Nevertheless

Reasons for suggesting a modification of the present statement of objects of the fund.

it is right that Government in permitting an appeal should define the objects it thinks legitimate, and to the extent to which the definition tends to prevent overlapping, the public will be all the more encouraged to subscribe. It has also occurred to us that to particularise in the statement of objects all the principal modes of relief recently used which seem unobjectionable, showing them as sub-heads under each major or object head, might facilitate the proper distribution of charitable funds on future occasions. It is with these objects in view, and after a full consideration of the actual manner in which the fund has recently been expended in the various provinces, that we have drafted a revised statement of objects; and under each major head, we have put as the first sub-head the particular mode of relief we think most important. Before giving our revised statement we think it advisable to make some other introductory and explanatory remarks under each object or major head.

Object I.—The present statement confines the relief given under this head to persons already in receipt of State relief. Under this head, however, relief was given to persons in distress of the class who generally come on State relief, but who did not get it because they resided in localities not officially declared as affected. Owing to high prices of food-grains induced by exports to famine tracts and partial local failure of crops, individual cases of extreme distress, or much diffused distress falling short of absolute destitution, may exist which it should be permissible to alleviate by means of the charitable fund. At the same time we think it desirable that the expenditure under this head should be confined strictly to charges incurred in supplementing the relief given by Government by the recognised methods of State relief within tracts in which those methods are in force. We therefore suggest that relief given in tracts not officially declared to be affected should be shown under a separate head, object V. Under the head of object I in our revised statement we have made the gift of clothes and blankets a separate sub-head, and by putting it first have indicated our opinion that it should, as far as possible, form the principal mode of relief under this head. For, while Government makes itself responsible for the saving of life by giving the people a ration enough to maintain them in health, it cannot undertake to distribute clothes to the needy; yet in an acute famine it is almost as much necessary to clothe the naked and the insufficiently-clad as to feed the hungry. Moreover one indirect advantage of distributing clothes is the employment it gives to poor hand-loom weavers, whose business during a famine seriously suffers owing to the general destitution which then prevails. We also think the gift of clothing should cover a wider range than is permissible under the present definition. As a matter of fact it was not confined to the limited classes mentioned therein but was extended under this head to all deserving persons in receipt of State relief.

Object II.—This is defined in general terms to be "providing for the maintenance of orphans." But the Government having accepted the responsibility of saving life, support of children left destitute by the death or disappearance of their guardians is, during the currency of the famine, a charge on the State, and it cannot legitimately be thrown upon the charitable fund, which is intended to supplement and not to supersede Government relief.

Object III.—Under this object should come all classes whom the State relief systems fail to reach. Additions to the dole to respectable men and women on the Government list under the chapter of the codes dealing with "Other

measures of relief," were made under this object; but, as this is supplementing State relief, the proper place for such charges is under the first object, and we have accordingly provided for this mode of relief there, reserving this object for those to whom the State systems are inapplicable, or who are not brought under them but who are nevertheless deserving of help. We have included under this head grants-in-aid to private poor-houses of an auxiliary kind, established by voluntary charitable action. Such grants-in-aid by the fund ought to be encouraged, for certain classes of the community may well be willing to establish such private institutions for the poor of their own community or for the public generally.

Object IV.—Aid to agriculturists under this object to be of real benefit must be given just before the commencement of the two sowing seasons irrespective of the character of the distress at those periods. It should further be made a condition of relief that the applicant should be without resources or credit, so as to exclude those who are in a position to obtain statutory loans from Government. The condition that the relief should be given when distress is subsiding is also unnecessary in the case of other classes who are to be helped to make a fresh start in life.

Revised definition of the objects of the fund suggested.

527. The following definition of the objects of a charitable fund embodies all our suggestions, and we recommend its adoption. We deem it necessary, however, to point out that the sub-heads under the major heads are not intended to be exhaustive, although we believe they cover the whole ground of charitable relief as administered during the late famine :—

Object I.—In supplementing the relief given by Government under the recognised systems of State relief, such as—

(*a*) by gifts of clothes and blankets to persons in receipt of State relief;

(*b*) by the addition of extra or special food, or medical comforts, to the subsistence dole or ration provided from public funds, for the aged or infirm, for the patients in hospitals, for children and the like;

(*c*) by an addition to the Government dole to *parda nashin* women and persons of respectable position admitted to gratuitous relief.

Object II.—In providing for the relief of orphans, such as—

(i) during famine—

(*a*) by giving grants-in-aid to private orphanages;

(*b*) by the addition of extra comforts, whether of food or clothing, for orphans maintained from public funds;

(ii) after the famine is over—

(*a*) by making provision for the maintenance and training of orphans left on the hands of Government;

(*b*) by giving grants-in-aid to societies, institutions or persons who have adopted famine orphans.

Object III.—In providing for the relief of persons or classes to whom the recognised systems of State relief are inapplicable, such as—

(*a*) by helping by free gifts or supply of work poor but respectable persons and *parda nashin* women precluded by their social position

from applying for, or accepting, State relief, accompanied as it must be by official enquiry into and by some kind of public test of the reality of the distress to be relieved;

(*b*) by supplying work in their trades to artizans and craftsmen to whom such work is not supplied at the cost of public funds, and to whom labour on ordinary relief works would be a hardship;

(*c*) by giving grants-in-aid to private poor-houses or other similar institutions maintained for the relief of persons in whose case residence in a public poor-house would be too severe a test of distress;

(*d*) by selling wholesome food-grains at cheap rates in fixed quantities to selected persons in receipt of small incomes, who, though suffering severe privation, would not accept charitable or State relief.

Object IV.—In re-starting in life those who are left without resources—

(*a*) by giving seed-grain, plough or well bullocks, and implements of husbandry, or their equivalent in money, to the most broken-down of the small landholders and cultivators who are ineligible for statutory loans from public funds, by supplying fodder for their cattle, by giving subsistence allowances for their support during the interval between the sowing and the harvest, and generally by helping them to start afresh in life;

(*b*) by restoring artizans, petty workers and others, who have lost their tools or stock-in-trade in the struggle, to their original position, and giving them a fresh start in life;

(*c*) by giving valedictory doles to persons in receipt of relief from public funds on their discharge from such relief.

Object V.—In giving relief in areas not officially notified as affected, such as, by relieving distressed individuals of the classes which generally come on State relief in famines, but who are not getting such relief because they reside in localities where distress is not general and which therefore are not officially notified as affected.

Remarks as to particular objects to which the charity fund was applied.

528. Relief through the agency of cheap grain shops is shown by the evidence we have taken to have given help much needed by certain classes particularly in the larger towns. These were people with small fixed incomes, whose distress was caused by the great rise in prices far exceeding their limited means. They are known everywhere to have suffered much. They were too respectable to seek or accept charitable relief, and they could not have been reached except by means of these shops. There is no evidence that these institutions interfered with private trade, though in some places, where owing to want of ready communication with centres of trade the local dealers could combine to fix their own rates, they seem to have steadied the market and prevented the undue raising of prices. Such a system of relief is in our opinion eminently suited to be left to local private charity and private organization; and though it cannot properly be undertaken by Government itself, there is no reason why it should not be countenanced by Government officers and recommended by them to local charitable organizations. As regards that most important branch of the charitable relief operations, namely, gifts of seed and bullocks to agriculturists, it must, we think, generally be administered through, or in close co-operation with,

the revenue officers of Government, who have the duty of giving loans from State funds for the same purpose. But such State loans can only be given to persons who can produce fairly reliable security, and to the extent covered by that security. The most broken-down either have no security to offer and must get free gifts or nothing, or they can offer acceptable security for an amount too small for their requirements. In the case of the latter class it is advisable that the small loan they can get from the State should be supplemented by a free gift from the charitable fund. There are again other small cultivators, who, if helped by a small free gift from the fund, can borrow something more from their bankers, and so get the sum absolutely required without incurring too heavy a debt at the high rate of interest which they have to pay in such circumstances.

SECTION VI.

ORDER AND SUCCESSIVE USE OF THE VARIOUS METHODS OF RELIEF.

Summary of general recommendations under this head.

529. In the course of this and the preceding chapters we have indicated in a general way the particular stages of distress at which in our opinion the various forms and methods of relief should be introduced. In such a matter it is impossible to lay down any hard and fast rules, and much must always be left to the discretion of the local Government and its officers. In exercising this discretion it will always be necessary to have regard to the nature of the distress to meet which measures are taken, the causes of the distress and the presence or absence of cumulative misfortunes, the economic condition and past history of the area affected, the extent of crop failure and the abundance or depletion of stocks, the gravity of the situation according as the distress is confined to small local areas or is likely to be spread over extensive tracts of country, the estimated period of duration and many other considerations. Subject to the ordinary course of administrative supervision, the responsibility of determining when and where test works should be opened and, thereafter, whether or no regular relief works should be started, will primarily rest with the Collector or district officer. When it is decided that regular relief works should be started, two important questions will call for immediate settlement. The first question will be the system on which the works are to be carried out, that is whether they are to be conducted under what is called the code system of task-work or according to some other system of payment by results permitted by the local code, and in the latter case whether or not separate allowances for dependants will be given. The determination of this important issue subject to the provisions of the local code will rest with the local Government. The importance of not beginning with a system which is unlikely to meet the necessities of the situation except for a very short time, will no doubt be recognised. The other question is the agency by which the works will be carried out and the extent to which the services of the Public Works Department will be utilized. Our views on this subject are expressed in paragraphs 235 to 238, and subject to the provisions of the codes it will lie with the local Government in each case to determine the action to be taken. We have already said that the organization of village relief and village inspection should in our opinion invariably begin simultaneously with relief works, and that as a general rule the actual distribution of village relief should begin at the same time or soon after, and in paragraph 478 we have discussed the considerations affecting the decision as to the particular stage of the distress at which a poor-

house system should be established. Speaking generally we think it will as a rule be desirable to open poor-houses at principal centres as soon as the prevalence of severe distress has been recognised by the starting of relief works and the organization of village relief. When hill and jungle tribes have to be dealt with, we have laid stress on the necessity for making very timely preparations as the difficulties to be encountered are usually very great. In the case of weavers, it must rest with the local Government to determine in every case whether special relief in their own craft is required and if so, to what extent. The question of the organization of private charity will depend upon the indigenous agency existing within the distressed locality and upon the existence or otherwise of any large public organization such as the Indian Famine Charitable Relief Fund of 1897. Advances under the Land Improvement Loans Act can be utilized to the best advantage during the early stages of scarcity, while those under the Agriculturists' Loans Act are of great use at all stages. When loans are given under the latter Act for the purchase of seed, it is of the utmost importance that the advances should reach the hands of the cultivators so as to admit of their purchasing the seed as nearly as possible at the exact time of sowing.

SUMMARY OF RECOMMENDATIONS.

Summary of recommendations as to methods and measures of working.

530. The following is a summary of the recommendations as to methods and measures of working which we have made in this chapter:—

I.—Programmes of works. All relief works should be classed in the programmes under the heads of "public works" and "village works" (paragraph 407). The responsibility for maintaining an effective programme of "public works" should be thrown more definitely on the Public Works Department (paragraphs 408-412). The preparation of a programme of "village works" should rest with the civil officers, but if the "public works" programme is unavoidably deficient, the Public Works Department should take up the "village works" programme and work it out in full detail (paragraph 413).

II.—Test works. Should if possible be under professional supervision and the test should be a task not less than by the code scale; the maximum wage earnable by the workers should not exceed the code wage of their class nor be less than it by more than one pice. Payments should be made in strict proportion to results without the proviso of a minimum wage, and allowances for a day of rest, or for dependants, should not be given by the Collector without the sanction of the Commissioner or some higher authority. We think the above system will be found generally suitable, but as it may be too repellent in some places local Governments should have discretion to substitute for it any system of work not more liberal than the ordinary task-work system of the codes (paragraphs 414-415).

III.—The general policy as to large and small (or public and village) works. When large and useful public works are available they should be opened as soon as possible after distress has declared itself in an unmistakeable manner, no small works being thereafter maintained within a reasonable distance. Public works should from the commencement form the backbone of the relief operations. Agricultural works undertaken by the village landowners, with or without advances from Government wholly or partially recoverable, should be utilized at the early stage of distress to provide employment for small cultivators and others

who cannot easily leave their villages. As the hot weather advances, operations on the large public works should be contracted and village works gradually opened (paragraphs 178, 406 and 416).

IV.—As soon as distress requiring relief is recognised in a district, some one of the code methods for managing relief works should be substituted for the ordinary contract system in the case of all public works intended to afford relief (paragraph 418).

V.—Systems of payment by results. We have described certain systems which experience seems to show may be adopted with advantage in place of the ordinary code task-work system at certain stages of relief operations, and we recommend that provision should be made in the revised provincial codes for power to use one or more of them subject to the condition that separate provision is always made for the weakly. None of these systems are in our opinion suited to the stage of acute distress or actual famine (paragraphs 215, 418 and 461).

VI.—In respect to the policy of contracting ordinary public works in time of famine, we think that so far as Imperial or Provincial finances and establishments may possibly permit they should be fully maintained or expanded in districts not recognised as actually distressed, but in which there is reason to suppose the existence of an exceptional demand for labour (paragraph 421).

VII.—All relief works, or at any rate all of the "public works" class, should as far as possible be conducted under some professional supervision. As to the agency by which relief works should be carried out, we recommend that in a widespread famine the Chief Engineer, acting under the close control of the local Government in the Famine Department or of the Famine Commissioner, should be responsible for the general direction of all relief works entrusted to the execution of the officers of the Public Works Department, and that under the Chief Engineer, and subject to the special powers of Commissioners of divisions and Collectors of districts in respect to famine relief the chain of departmental responsibility should remain as at ordinary times. When famine is less extensive, we think the control may be less centralized and that the primary responsibility for the management and efficiency of the relief works should rest with the Divisional Commissioners and the Collectors; Public Works officers, in districts in which there is no district board engineer, or the work is beyond his capacity, being in such case deputed to have immediate charge of the relief works under the Collector's orders, and one or more Superintending Engineers being directed to co-operate with the Commissioner or Commissioners as famine duty professional adviser and assistant (paragraphs 235-237 and 422).

VIII.—Responsibilities of officers of the Public Works Department and their position and relation to civil officers. These should not be too rigidly defined. The principle laid down in section 130 of the Famine Commission's report should be fully observed. The Commissioner within his division and the Collector within his district should have a power of general control over all relief operations, including relief works under the management of the Public Works Department, and should be primarily responsible to Government for their efficiency in affording relief. The Collector's decision when he considers it necessary to interfere should be accepted pending reference to superior authority in all matters relating to the employment and wages of the labourers, the opening or closing of works, the payment or feeding of dependants, and generally in all

other matters which are not of a strictly professional nature. But except in cases of unusual urgency such orders should be communicated by the Collector to the Executive Engineer or other Engineer officer having control, and not direct to his subordinates resident on the works. When the conduct of relief works is entrusted to the Public Works Department as a department, the Superintending Engineer in his circle and the Divisional Engineer in his division will be directly responsible to the Chief Engineer for their proper conduct by their subordinates in accordance with the rules of the Famine code and such supplementary orders as may be issued by Government or the Famine Commissioner if such an officer is appointed. They should however in such case, by personal communication and otherwise, keep themselves in constant touch with the Commissioner and Collector on all matters not of a strictly professional nature, and must accept their orders in such matters pending reference to superior authority, if they think it necessary to interfere (paragraph 423).

IX.—Civil officers and officers in charge of relief works. We attach importance to the principle of appointing a civil officer to each large work or group of smaller works managed by officers of the Public Works Department to have charge of matters affecting relief, or in other words of all matters not relating to construction and direction of the work, and we define his special duties. But in order to avoid division of authority on the works we recommend that the services of these civil officers should be placed at the disposal of the Public Works Department for famine duty, and that the Superintending Engineer or Divisional Engineer should, in communication in doubtful cases with the Commissioner or Collector, determine whether the civil officer or the Public Works officer whose special duties are those of construction and direction of labour should be the "officer in charge" of a particular work (paragraph 426).

X.—We recommend a new classification of relief workers, the main feature of which is that the bulk of the labourers will be divided into two classes, *viz.*, "diggers" and "carriers." We recommend the abolition of sexual subdivisions within the same class, and make definite proposals for the treatment of adult dependants and non-working children and working children (paragraphs 439-445 and 450).

XI.—We adhere to the full ration of the provisional code but make a slight alteration in the minimum ration, and we have devised a standard wage-scale based on these rations which we think can be applied to the new classification we propose (paragraphs 446-456). One result of our proposals as to classification and wages is that we revert to the principle laid down by the Famine Commission that all able-bodied labourers capable of performing not less than 75 per cent. of a full task should be entitled to the full wage, while in the case of labourers incapable of performing 75 per cent. of a full task we follow the principles laid down in the provisional code and restrict their wages to 75 per cent. of the full wage (paragraphs 450 and 462).

XII.—A system of cash daily wage to be calculated in full pice (and not in pies) is recommended (paragraph 457).

XIII.—A limit of permissible deviation from the standard wage-scale which we propose is suggested in order that local Governments may have the necessary discretion to adjust the wages actually earned to the requirements of existing circumstances (paragraphs 458 and 459).

XIV.—Rest day allowances should be made to all workers, except where payment is made by results at rates calculated to allow seven days' subsistence to be earned by six days' work (paragraph 465).

XV.—Returns and accounts. We make suggestions for securing uniformity and simplicity in these (paragraph 467).

XVI.—Gratuitous relief. We consider the provisional code's definition of persons eligible to receive gratuitous relief sufficient in ordinary circumstances, provided it is properly and liberally interpreted. We think it necessary however to point out that persons of the classes described in that definition should not be considered ineligible for village relief because the bread-winners of the family are employed on relief works, and propose that they should be freely allowed the option either to go to relief works as dependants or to apply for village relief (paragraphs 468-470). In two exceptional cases we consider that an expansion beyond the provisional code definition may properly be allowed. These are first in the case of aboriginal hill and jungle tribes, and second at the commencement of the rains when it is impossible to provide suitable work fairly adjacent to the homes of the people (paragraph 471). We attach great importance to the early organization of village relief and village inspection (paragraph 472). The dole to be given in village relief is specified (paragraph 474).

XVII.—Non-working children and adult dependants of relief workers. All the codes should contain provision for both systems of relieving these persons, namely, either by feeding them in kitchens or by means of cash or grain allowances given to the workers for their support. As a general rule, we are in favour of the kitchen system in the case of children (paragraphs 475-476). When relief works are conducted on a system of payment by results, it will rest with the local Government to decide whether the wages or rates paid to the workers should be so adjusted as to leave a margin for the support of their dependants, or whether separate allowances should be given for dependants. Preference should be given to the latter course when distress is at all severe (paragraph 477).

XVIII.—Poor-houses. It is a matter for local discretion to decide when poor-houses should be opened. The ration to be given in ordinary circumstances is the minimum ration as modified by our proposals, but officers in charge should have full discretion to give special rations (paragraph 478).

XIX.—The relief of aboriginal hill and jungle tribes should be a specialized branch of relief operations. Detailed suggestions for effecting the relief of these people are made (paragraphs 479-491).

XX.—Special relief to weavers in their own craft. When weavers are congregated together in considerable numbers they should be relieved in their own trade, provided the net cost is not likely to materially exceed either (*a*) the net cost of relieving them by employment on ordinary relief works or (*b*) the net cost of relieving them by gratuitous village relief. A set of rules is recommended for adoption (paragraphs 508-511).

XXI.—Utilisation of private charitable contributions. A revised definition of the objects of a charitable fund is recommended for adoption (paragraph 527).

From the above summary of our recommendations it will be seen that in the matter of the broad principles of relief administration we adhere very closely to the recommendations made by the Famine Commissioners in 1880. It is only in matters of detail that we have proposals to make, and these proposals are more of the nature of an expansion of the principles laid down in 1880 than of divergencies from them. Indeed in some cases the result of our investigations has been to lead us to revert to the recommendations of the Famine Commission, where in fact they have in some respects and in some provinces been since departed from. We assert the necessity for concentrating the control of all the various branches of the administration concerned in famine relief, and maintain the responsibility of the chief civil officers of divisions and districts for effectively supervising and controlling all the measures of relief undertaken within their respective charges. The recommendations we make regarding the responsibilities of the officers of the Public Works Department for the conduct of works entrusted to the direction of the department are in strict conformity with these considerations, and our proposals merely put in a more uniform and definite shape what we believe to be the general intention of the various and sometimes rather indefinite provisions of the existing codes. In the all important matter of the system under which relief works should be conducted, we adhere to the task-work system of the codes as the only system which is really effective when famine is at all severe. Our recommendations as to the adoption of any of the systems of payment by results which were so largely resorted to during the recent famine are of a permissive nature, and are intended to restrict such systems to circumstances other than those of acute famine. In making these recommendations we do not depart from the principles of the Famine Commission who intended that piece-work, or payment by results, should, when suited to the circumstances of the time or the locality, be largely used for the relief of the able-bodied. Our recommendations as to the classification and wages of workers are based upon and are intimately connected with the principles laid down by the Famine Commission, the object of our proposals being only to secure simplicity and facility of working and a certain elasticity in application which it is essential to obtain. In the equally important matter of the administration of gratuitous relief, it will be found that the few recommendations we make constitute no real departure from the principles hitherto accepted. The general result of the experience gained during the recent famine is to show that the existing codes have been framed in almost all respects on suitable lines, and to confirm the principles on which they are based. Our recommendations, if accepted, should render the codes more adaptable to all the varying conditions to which they have from time to time to be applied, and supply some deficiencies in the few matters in which they are not sufficiently precise.

CHAPTER VII.

OTHER OPINIONS OR RECOMMENDATIONS.

Introductory remarks.

531. In the previous chapters we have endeavoured to answer the specific questions contained in the first three paragraphs of our instructions. The final paragraph invites us to make any further inquiries and record any further opinions which it is thought will prove useful in future famines.

SECTION I.

THE FAMINE RELIEF AND INSURANCE GRANT.

The Famine Relief and Insurance Grant.

532. Under this head we have in the first place thought it advisable and permissible to make a summary inquiry into the working of the Famine Relief and Insurance Grant, in order to see whether there were any recommendations in connection with that scheme which might in our opinion be usefully submitted. The scheme, in its first form, owed its introduction to the pressure of the great famine of 1877-78. Before that the obligation of the State to do all that is possible towards preserving the lives of the people in time of famine had by degrees become fully accepted, and for some years the principle had been urged that famine relief must be regarded as a charge liable to constantly recur, which must be met like all other obligatory and recurring items of expenditure in a way which would not involve increase of permanent debt. The occurrence of the great famine of 1877-78, and its great cost, strongly enforced these conclusions, and induced Lord Lytton's Government to take measures to create new resources by which in normal years a surplus of revenue could be secured to meet the extraordinary charges thrown upon the State in time of famine. With this object certain new taxes calculated to provide the greater part of the desired surplus were imposed by legislation. In connection with this new taxation, though not in dependence on it, Lord Lytton's Government offered a pledge to the people of India that due provision should be made by yearly grants, not only for famine relief, but also for famine insurance. The sum of the annual provision or grant was fixed by Lord Lytton's Government at Rx. 1,500,000 until a less sum should be found sufficient. This sum was based upon actual famine expenditure in the 10 years preceding, and the Famine Commission on the same basis arrived at nearly the same amount by a wholly independent calculation: but it may be mentioned that it appears from the responsible utterances made by Lord Lytton and his Financial Minister on more than one occasion, that at the time they anticipated that this sum would form an assurance against extraordinary losses of revenue in famine years as well as against the actual cost of famine relief; and though they were pledging themselves to a special scheme, it is clear that the main object they had in mind was the general financial result. The simple object was in fact to provide so far as possible an annual surplus of one and a half crores for famine relief or famine insurance expenditure. To the extent to which in any year the amount was not spent on relief, it was to be spent solely on reduction of debt, or rather, upon avoidance of debt, which is the same thing. Such avoidance was to be effected by spending the money on productive public works, the cost of which would otherwise have been met by loans.

Measures taken for the proper carrying out of the scheme.

533. In the budget for 1878-79 the grant required by the scheme was made, but in the budget for 1879-80, owing to war and financial difficulties, it was suspended. In the accounts only actual famine relief expenditure, if any, was shown; the surplus secured by the new taxes and arrangements was merged in the surplus or deficit of the general finances. This obscurity in the accounts and the suspension of the budget grant in 1879-80 led to much protest by the public, and attracted the attention of the Secretary of State to the subject. In his despatch of 23rd December 1880 the Secretary of State took exception to a statement made by Sir John Strachey to the effect that, whether the public accounts show surplus, equilibrium, or deficit, the new taxes must prevent debt by the amount they yield and that that was sufficient. The Secretary of State held that to fulfil the pledges of the Government and satisfy the public, some greater security for the proper carrying out of an insurance scheme must be obtained. The Government of India concurred in the view taken by the Secretary of State, and after correspondence the whole scheme was reconstituted in 1881. It was decided that the full grant of one and a half crores should always be entered in the Budget under the head of Famine Relief and Insurance, with sub-heads for (1) Relief, (2) Protective Works, and (3) Reduction of Debt; and that in the accounts the expenditure should be shown under the same heads, the third item being treated, *quoad* this special account, as expenditure, for the better information of the public, though from a financial account point of view it is not technically expenditure. In the annual account under the special head the charges to the sub-heads were to be regulated as follows. The actual expenditure on famine relief, if any, in the year was to be a first charge upon the whole grant. Protective works were to be the next charge. To reduction of debt was assigned only the balance, if any, left after the charges for relief and protective works had been met.

This description of the new scheme or settlement of 1881 shows that by this time the original policy of devoting the whole of the grant, less actual cost of famine relief, to reduction or avoidance of debt had been changed by the acceptance of the view that a large part of the grant might be better applied to what are called Famine Protective, as distinct from Productive Public Works. This view was agreed to in 1879, from a conviction of the urgency of carrying out such works, as recommended by the Famine Commission; and upon the theory that such works may be expected either to prevent famine or to render its relief less costly when it occurs. The share of the grant intended to be annually allotted to Protective works by the scheme was three quarters of a crore or half the full grant, but expenditure under this head was to be cut down by stopping or reducing works in years when expenditure under relief in excess of half the grant might be anticipated; so as to maintain, as far as possible, the principle that relief was a first charge upon the whole grant.

Working of the Famine Relief and Insurance Scheme since 1881-82.

534. The arrangements briefly described above were to come into force from 1881-82, and they constitute the Famine Relief and Insurance scheme in what may be called its later form. It was part of the new scheme that Commissioners for managing the reduction of debt should be appointed, but as that provision very soon became inoperative, it does not seem necessary to discuss it. It is this new scheme, with some slight modifications that have been since approved by the Secretary of State, which we have considered. The following table exhibits

the working of the scheme from 1881-82 to 1897-98. It is only from the former year that the account is held to have been running.

Famine charges.

—	In the 15 years ending 1895-96.	Actuals, 1896-97.	Total up to the end of 1896-97.	Revised Estimate, 1897-98.	Total up to the end of 1897-98.
	Rx.	Rx.	Rx.	Rx.	Rx.
1. Spent upon actual Famine Relief ...	320,664	2,079,525	2,400,189	5,391,800	7,791,989
2. Spent upon construction of Protective Irrigation Works.	1,813,841	46,830	1,860,671	22,400	1,883,071
3. Spent upon construction of Protective Railways.	6,550,931	...	6,550,931	...	6,550,931
4. Spent in meeting interest upon the Indian Midland and Bengal-Nagpur Railways.	3,631,450	438,857	4,070,307	368,200	4,438,507
5. Charged as reduction and avoidance of debt, that is, as famine surplus.	5,327,299	....	5,327,299	...	5,327,299
Total ...	17,644,185	2,565,212	20,209,397	5,782,400	25,991,797

It should be understood that the sums spent under the fourth heading count as money spent on protective works, that mode of using the grant to promote the construction of protective railways by private enterprise having been sanctioned in 1886. It will be seen that the cost of actual famine relief during 17 years has amounted to Rx. 7,791,989 and that during the same period an expenditure of Rx. 12,872,509 has been incurred on protective railways and irrigation works, the object of which has been either the prevention or mitigation of famine, or the facilitating of measures of relief. In addition Rx. 5,327,299 has been applied to the reduction or avoidance of debt. Including this amount the total expenditure under the scheme on Famine Relief and Insurance has amounted to Rx. 25,991,797, which gives an average of about Rx. 1,530,000, or a little more than one and a half crores, per annum. But it may be noticed that the table also shows that the expenditure for the 15 years ending 1895-96 amounted only to Rx. 17,644,185, or an average of Rx. 1,176,279 per annum, and that the ultimate average for the 17 years ending 1897-98 has been brought up to Rx. 1,530,000 only in consequence of the extraordinary expenditure on famine relief during the last two years necessitated by the occurrence of severe famine. If the scheme had been fully carried out in all respects for the first 15 years the total grant for that period would have been 22½ crores, of which 11¼ crores would have been allotted to Protective works, and instead of Rx. 5,327,299 a sum of nearly 11 crores would at the end of 1895-96 have been the famine surplus available to meet the heavy famine expenses of the two following years. It will be seen, however, that the actual expenditure within the 15 years on account of protective works amounted to Rx. 11,996,222, which is more than the half share of the full grant allotable to such works under the scheme. In respect to such works, therefore, the intentions of the scheme as approved by the Secretary of State appear to have been fully carried out, on a series of years if not annually, and the short appropriations have affected only the head of reduction of debt. The question whether they have affected this head really or only nominally seems to depend upon whether they were inevitable or could have been avoided by measures of economy in the general administration of the finances. If the short

appropriations were inevitable it may be said, as we understand the matter, that their only effect has been to reduce the amount of the famine surplus, by which we mean the sum shown under the special head of Famine Relief and Insurance as applied to the avoidance or reduction of debt. This would be a mere matter of account, for the sum which is actually devoted annually to the avoidance and reduction of debt is the amount of the famine surplus plus the budget surplus, and a *pro formâ* increase of the former would have resulted in a corresponding decrease in the latter.

Apparent reasons for short appropriations.

535. The short appropriations to the famine grant during the 15 years ending 1895-96 appear to have been attributable partly to financial exigencies and partly to a belief that was at one time held that the cost of famine had been over-estimated, and could be met by a grant of less than 1½ crores annually. The actual working of the scheme in this respect is clearly shown by the first seven columns of the subjoined table, taken from Part I of the Financial Statement for 1896-97. The last column shows the declared surplus or deficit of the general accounts for each year. This column has been inserted with the object of showing that though for certain reasons the sums applied within the scheme to the reduction of debt have been deficient, yet if the surplus in the general account for the whole series of years is considered, the object of the scheme will be found to have been secured.

Years.	Famine relief.	Construction of protective irrigation works.	Construction of protective railways.		Reduction or avoidance of debt.	Total.	Declared surplus (+) or deficit (—) in accounts.
			Charged under Famine Relief and Insurance.	Charged under Railway Revenue Account.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1881-82 ...	34,883	135,449	682,403	...	715,151	1,567,886	+3,595,451
1882-83 ...	22,103	263,443	—133,129	...	1,343,555	1,495,972	+674,837
1883-84 ...	9,205	283,223	649,248	...	581,137	1,522,813	+1,879,707
1884-85 ...	7,350	253,046	946,457	...	341,504	1,548,357	—386,446
1885-86 ...	40,695	186,807	589,000	29,271	683,498	1,529,271	—2,801,726
1886-87 ...	1,041	107,979	200,000	151,812	...	460,832	+178,427
1887-88 ...	402	91,006	...	285,199	...	376,607	—2,028,832
1888-89 ...	7,799	70,537	...	430,182	...	508,518	+37,018
1889-90 ...	68,288	71,457	...	462,009	460,255	1,062,009	+2,612,033
1890-91 ...	5,579	74,392	...	482,351	520,029	1,082,351	+3,688,171
1891-92 ...	23,423	77,931	484,795	231,681	682,170	1,500,000	+467,535
1892-93 ...	70,841	60,793	984,469	383,897	...	1,500,000	—833,412
1893-94 ...	496	56,351	1,060,954	371,768	...	1,489,569	—1,546,998
1894-95 ..	10,258	43,110	556,867	389,765	...	1,000,000	+693,110
Total of 14 years	302,363	1,775,524	6,021,064	3,217,935	5,327,299	16,644,185	+6,228,875
1895-96 (Revised Estimate).	10,500	40,200	534,800	414,500	...	1,000,000	+951,400
Total of 15 years	312,863	1,815,724	6,555,864	3,632,435	5,327,299	17,644,185	7,180,275

It will be seen that in 7 years out of the 15 the expenditure against the grant was limited to the actual outlay on famine relief and on protective

works, and that there was no famine surplus applied to the avoidance or reduction of debt. In regard to the last column it should be noted that the actual surplus for 1895-96 was Rx. 1,533,998 instead of Rx. 951,400 shown in the revised estimates, and allowing for this difference the net surplus by the general account for the 15 years amounted to Rx. 7,762,873. This is in addition to the famine surplus of Rx. 5,327,299 shown as expenditure in reduction of debt under the Famine Relief and Insurance scheme account during the same period. The table shows, therefore, that although the exigencies of finance or other considerations prevented Government from completely fulfilling its self-imposed obligations, the finances as a whole had been so administered as to practically fulfil the policy of insurance involved in the scheme. In other words that an aggregate surplus of over Rx. 13,000,000 had resulted to the end of 1895-96, which by causing the reduction or avoidance of debt to the same amount gave the borrowing power necessary to meet the cost of the great famine in the two following years. The only question that seems to arise as to the sufficiency of this explanation is whether the existence of declared surpluses in the general account, which would have been extinguished or reduced if full appropriations had been made in the Famine Relief and Insurance account, may not have sometimes encouraged the incurring of new expenditure not absolutely necessary.

Opinion as to the maintenance of the Famine Insurance grant at the full amount originally fixed.

536. In a communication from the Government of India of October 1885 a description of the objects of the Famine Insurance scheme in its later and present form is given, and again in the same communication the question of the periodical revision of the amount of the grant is referred to. We are not aware of any present intention of reducing the amount: our own study of the subject would not lead us to recommend any alteration of the sum at which the famine insurance grant was originally fixed. On the contrary, we are of opinion that it should be maintained at the full amount of a crore and a half. We have shown in paragraph 534 that the average expenditure for the last 17 years under the scheme has been up to that figure, and so long as half the amount is devoted to protective works, as we think it should, for reasons given below, there seems to us to be no case for reduction. If we try to estimate the working of the scheme on its present basis for the next 20 years, and assume that the full grant of one and a half crores is appropriated annually, the total grant for the period will be 30 crores. The cost of relief in the same time, if simply calculated from the actual cost for the 17 years ending in 1897-98, may be put at 8 crores, and the cost of protective works at say 14 crores (allowing for such reductions as can be made in the two or three years in which relief will absorb the whole grant or more than half of it). This leaves a surplus of 8 crores to be shown under the sub-head of reduction of debt. Such a surplus does not seem too great if we consider the indirect cost and losses attributable to famine, which we refer to further on, and the impossibility of forecasting the direct cost of relief with any accuracy. We may not have again such a long period without extensive famine as occurred between 1881-82 and 1895-96. Experience shows that on the occasion of a wide-spread failure of the rains such as was recently experienced, railways, however useful and necessary they may be, do not keep down prices to a point at which slight pressure only is felt. So far as they equalise prices, they widen the area of scarcity though lessening the intensity elsewhere of famine. Though they bring grain to tracts liable to famine

in years of drought, they also prevent large accumulations of grain in those tracts in years of plenty. The Government of India must reckon not only on frequent small local famines, but also on the occasional recurrence of widespread droughts, and experience shows that in spite of all railway facilities such a drought will cost over seven crores of rupees in direct charges, and will cost much more than this if it is continued into a second year. A further consideration involved is the fact that the standard of relief, and of promptness in affording it, is certain to rise. We have mentioned in our report some instances in the late, and other recent famines, where, in our opinion, hesitation to commit the State to the great expense of famine relief led to loss of life which might have been avoided. The very perfection of communications and of the system of relief organization conduces to this rise of standard; and since it is found possible to so extend relief as not only to prevent death, but also to maintain strength and prevent absolute ruin, the impulse of humanity impels the State to widen the scope of its relief measures and to make them more costly.

Budget estimates to include the full grant for famine relief and insurance.

537. We consider, therefore, that in accordance with the existing scheme the budget estimates should be so framed as to include a full grant of 1½ crores for Famine Relief and Insurance, and we recommend that, if at any time financial exigencies should necessitate a contraction of the grant, the amount by which it is reduced should be made good by an addition to the grants of subsequent years in which conditions may be more favourable. It is true that a surplus shown in the annual accounts of the Empire is in its financial effects the same as a famine surplus shown under the Famine Relief and Insurance account, but we think that the adoption of our recommendation might tend to economy, and that much misapprehension as to the working of the Famine Relief and Insurance scheme would be removed if the famine grant were maintained, as far as possible, at a constant amount, and the balance remaining after meeting the charges of the year for relief and protective works were distinctly shown in the accounts as a famine surplus.

Amount to be devoted to protective works. Irrigation in preference to railway works recommended.

538. As regards the share of the full grant to be ordinarily allotted to protective works, we may begin by observing that the annual charge for interest upon the Indian Midland and Bengal-Nagpur Railways, which we have described above in paragraph 534, varies according to the net revenue of the railways concerned, but appears to average about Rx. 400,000 per annum. This charge is peculiar inasmuch as it must be met in full even in famine times: if not from the grant then from other resources. It cannot be avoided by postponing work, as ordinary charges for protective works can. The amount may be reduced in time, but at present may be regarded as a fixed and recurring annual charge against the fund, and is the price paid by the State for the large protective value of these railways which traverse some of the districts most seriously affected during the late famine. This liability has to be borne in mind in considering the amount of the grant. As regards protective works in general, their construction from the Famine Relief and Insurance grant was orginally justified by the prospect of their largely preventing famine and diminishing future outlay on relief. No doubt they will have effects in this direction, but we are not sanguine as to the degree. We are disposed to agree largely with the following opinion expressed by Sir John Strachey in which we believe he had railways specially in mind. "The true object of these protective works is to give increased security against

the greatest dangers that arise in extreme drought, to supply the means of saving life, and of averting suffering and misery, rather than to cause an eventual reduction in the cost of famine relief." We do not in fact expect that these protective works can be trusted to materially reduce the outlay on famine relief in the near future. Nevertheless we are of opinion that the existing policy of spending half the grant on works of a *bonâ fide* protective character is one that is justified by the increased degree of immunity from famine it will gradually produce, and by the other benefits it will confer on the country: and we recommend that it should be continued as long as a suitable programme of such works is forthcoming. This is our opinion, though we do not forget that all expenditure on such works diminishes *pro tanto* the famine surplus that would otherwise be made available to meet the cost of future famine. We understand that as long ago as 1886, Major Baring recommended that the whole or nearly the whole of the three quarters of a crore allotable to protective works should be spent on irrigation in preference to railways. As the interest on the Indian Midland and Bengal-Nagpur Railways now constitutes a first charge on the grant, the balance available for the construction of new protective works will, at any rate for some time to come, never exceed Rx. 350,000; and, provided always that a suitable programme is forthcoming, we think that the greater part, if not the whole, of this amount should be devoted to protective irrigation works. It appears to us that most of the necessary protective railways have now been constructed, that there is a possibility of others being constructed on their merits as productive works or as feeders to the trunk lines of railway without assistance from the famine grant, and that under existing circumstances greater protection will be afforded by the extension of irrigation works which would not otherwise be undertaken than by the construction of railways of that kind. It may we think be added that as the bulk of the revenue, and of the special taxes imposed in 1878, is paid by the holders and occupiers of land, and as the State in India is generally in the position of superior landlord, there are special reasons why the Government should undertake without expectation of direct return works peculiarly protective of agriculture, such as irrigation works.

Expenditure and loss of revenue attributable to famine outside the account.

539. In considering the working of the Famine Relief and Insurance scheme we have not referred to expenses and losses of revenue attributable to famine which are outside that account. The following table, compiled from tables given in the Financial Statement for 1898-99, purports to give an approximate estimate of such losses and expenses for the two years 1896-97 and 1897-98:—

Item.	1896-97.	1897-98.
	Rx.	Rx.
Compensation for high price of provisions and other charges due to famine	766,100	1,048,500
Remissions of land revenue ...	871,600	576,400
Loss of revenue under salt, excise, customs and forests	576,700	663,700
Loss of railway revenue	1,504,100	1,477,400
	3,718,500	3,766,000
Deduct—		
Increase of revenue due to irrigation ...	424,900	556,700
Net total ...	3,293,600	3,209,300

The total loss or cost shown by the table amounts to the large sum of Rx. 6,502,900, a very serious addition to the direct cost of famine, the effect of which on the general finances has to be borne in mind. The first two items are reliable: the others are said to be mere approximations, and are in fact little more than a guess. It is not possible to estimate what the indirect cost under these heads has been for the 17 years since 1881-82. We have no estimates, nor would they be of much value if prepared. As to the land revenue remissions, the real amount for 1896-97 and 1897-98 is likely to be somewhat greater, as some of the revenue suspended will probably be ultimately remitted. But it should be remembered that these remissions, though a most useful and necessary form of relief in famine times, are not strictly famine expenditure. The duty and policy of making such remissions to the landholders, in years of absolute and abnormal failure of crops from any cause, is an old obligation on the State, based on its original title to take land revenue. They are often made in years in which no proper famine relief is granted. They are not allowed in permanently settled tracts, and in temporarily settled districts the large increases generally taken when the terms of settlement fall in may be considered to cover any balance of them not covered by the Famine Relief Insurance scheme. We take this opportunity of remarking that any want of proper liberality in granting these remissions in times of great loss of crops and cattle, would in our opinion be inconsistent with the present policy of readiness to make great changes of laws and regulations in the hope of saving the agricultural classes from indebtedness. This seems plain, but with a strongly departmental system of Government such an inconsistency is not impossible. Each department is apt to find reasons for its own hard and fast rules, though it is apt to cry out against the rigidity of those of other departments.

The loss in Railway traffic receipts appears to have occurred on the guaranteed lines leading to Bombay, and was attributed to plague and famine. It must have been difficult to distinguish the share attributable to famine. In some former famines the result was to increase railway traffic receipts. Excise is an item which fluctuates from year to year in accordance with the means of the lower classes; more than half the decline shown in the table seems to have occurred in the North-Western Provinces. The immense decline in the affected districts of these Provinces is evidence of the severity of the distress, and of the close economy of the relief afforded. Under the head of customs, a large part of the decline seems due to diversion to India of rice from Burma which would ordinarily have been exported to foreign ports, and would have then paid duty. The forest revenue for India as a whole shows increase in the two years. There must no doubt have been some loss in certain tracts, but we think it must have been small and very difficult to calculate correctly.

The increase of revenue due to the greater demand for irrigation in seasons of drought is an important set-off against the loss of revenue under other heads. We refer again to this subject below in paragraph 579.

SECTION II.

IRRIGATION.

General recommendations of the Famine Commissioners.

540. The Famine Commissioners, in Chapter V, Part II, of their report, remarked that "among the means that may be adopted for giving India direct protection from famine arising from drought the first place must unquestionably be assigned to works of irrigation." They pointed out that the true value of these works could

not be measured by their financial success considered only with reference to the net return to Government on the capital invested in them, but that account must also be taken of the direct protection afforded by them in years of drought by the saving of human life and by the avoidance of loss of revenue remitted, and of the outlay incurred in costly measures of relief, while in seasons of average rainfall they are of great service and a great source of wealth, giving certainty to all agricultural operations, increasing the outturn per acre of the crops, and enabling more valuable descriptions of crops to be grown. After giving some figures showing the value of irrigation works in different provinces in this respect, they remarked that in spite of the ill-success of some works "the actual experience is altogether opposed to the view that the existing works of this class, taken as a whole, are otherwise than positively remunerative to an extent which completely justifies the measures which the Government of India has carried out for their extension during the last 20 years or more." They showed that the net revenue on all these works in the year 1879-80 amounted to very nearly 6 per cent. on the capital expenditure, which included £3¼ millions on works not yet brought into operation. Their general conclusion was expressed in the following words:—

"Viewing the provision of irrigation works as a means of affording an insurance against drought, the Government may, we think, properly regard them as a class of undertakings which should be treated as a whole, so that any unusual facilities obtained in one direction may be set off against special difficulties in another, and the general financial outcome of the entire class may be accepted as a sufficient test of the policy that should regulate their treatment. Thus considered, and bearing in mind that it has never been the desire of Government to manage these works with a view to show great profits, the actual results which have been stated appear to us entirely satisfactory, and such as to justify their continued prosecution with all suitable precautions to ensure economy of construction."

The Commissioners then made detailed recommendations for the improvement and extension of irrigation in those provinces in which it was most needed. We now propose to consider first the general progress that has been made in the extension of irrigation since 1879-80, and next the extent to which effect has been given to the Commissioners' recommendations for each province.

Classification of irrigation works.

541. Irrigation works are divided into three classes—

I.—Productive works.

II.—Protective works.

III.—Minor works.

The capital cost of productive works is not charged to Revenue, but is provided for out of loan funds. These works include all the larger irrigation systems. Although some works have been included in this class which are never likely to be remunerative, no works have for many years been sanctioned under it unless there was reason to believe that they would prove remunerative in a strictly financial sense. It is only on this condition that the construction of irrigation works out of loan funds is permitted.

Protective works are those which have been constructed as a protection against famine out of the grant for Famine Relief and Insurance. Such works have been sanctioned when the prospects of their proving financially remunerative

have not been sufficiently clear to justify their construction as productive works, while the cost was too considerable to be undertaken as a charge against the ordinary minor works grant. Expenditure was first incurred on protective irrigation works in 1881-82, and no reference is therefore made to them as a class in the Famine Commissioners' report, although some of the works recommended by them have since been sanctioned under this class and completed.

Minor works are those which are constructed out of ordinary revenues, other than the Famine grant. For all the more important works capital and revenue accounts are maintained, but this is merely for the sake of showing more clearly their financial results. The expenditure shown as capital is met from ordinary revenue and not from loan funds, and no interest charges are therefore made against these works. The Famine Commissioners in their report have made occasional allusions to some of these works, but their remarks were mainly confined to the productive irrigation works, the progress on which since 1879-80 will now be considered.

Productive works. Capital outlay since 1879-80.

542. The capital outlay on productive irrigation works at the end of 1879-80 was reported by the Famine Commissioners as amounting to Rx. 20,298,000. The capital outlay at the end of 1896-97 on these works, including one purely navigation work, the Hidgili Tidal Canal, amounted to Rx. 31,252,948. The capital expenditure during 17 years has therefore amounted to Rx. 10,954,948. This however includes a sum of Rx. 1,742,246 paid to the Madras Irrigation Company when the Kurnool-Cuddapah Canal, to which reference is made in the Commissioners' report,* was taken over by Government, and excluding this the actual capital expenditure since 1879-80 has averaged Rx. 540,000 per annum.

*Chapter V, Part II, paragraphs 49—52.

Extension of irrigated area since 1878-79.

543. The areas irrigated by productive irrigation works in the three years preceding the issue of the Famine Commissioners' report were as below—

	Acres.
1876-77	4,027,758
1877-78	4,736,017
1878-79	5,171,497

During the three years ending 1896-97 the areas irrigated by productive irrigation works have been—

	Acres.
1894-95	6,099,952
1895-96	7,775,936
1896-97	9,448,692

The years 1877-78 and 1896-97 were famine years, and the area in the latter year was abnormally high, although that of 1897-98 will not fall far short of it. The year 1894-95 was unfavourable for irrigation in many provinces owing to abundant and opportune rainfall; the areas in the two years preceding averaged about 7,000,000 acres.

Return on the capital outlay.

544. The net revenue of productive irrigation works in 1879-80 amounted to Rx. 1,165,800, or, as reported by the Famine Commissioners, to nearly 6 per cent. on the whole capital outlay.

The returns for each province during the three years ending 1896-97 are as below:—

Provinces.	1894-95.	1895-96.	1896-97.
Punjab	4·30	5·37	9·47
North-Western Provinces	5·56	3·45	7·68
Madras	7·16	7·34	7·14
Bombay (Sind)	6·00	5·59	6·30
Bombay (Deccan and Gujarat)	1·95	2·18	1·45
Bengal	·09	·19	·83
TOTAL	4·29	4·10	6·35

The returns for 1894-95 and 1895-96 were below the average, while those for 1896-97 were increased in consequence of the strong demand for irrigation in a famine year. The effect of this demand will however appear more fully in the accounts of 1897-98, when according to the revised budget estimates the return will have been not less than $7\frac{1}{2}$ per cent. It may thus be said that although the capital outlay on productive irrigation works has been increased by over 50 per cent. since the report of the Famine Commissioners, an average return of about 6 per cent. is still realized, and that the new projects and extensions undertaken since 1879-80 have been financially as profitable as the works constructed before that date, in spite of the fact that the outlay subsequent to 1879-80 includes the purchase from the Madras Irrigation Company of the Kurnool-Cuddapah Canal, which, with a capital account of Rx. 2,171,349, barely pays its working expenses.

Surplus revenue derived from works after meeting all interest charges.

545. The remunerativeness of these works may be shown in another way. Taking them as a whole, including the works which are never likely to be remunerative and those not yet opened or in full operation, the surplus revenue realized to the end of 1896-97, after paying all interest charges and working expenses, amounted to Rx. 4,829,917, the surplus for the year 1896-97 itself being Rx. 809,173. The interest charges are calculated throughout at 4 per cent.

Number of productive irrigation works.

546. There are altogether 41 productive irrigation works. For 14 of these all interest charges incurred during construction and until they were fully developed have been paid off, while on six others the accumulated interest is being annually reduced and will be eventually cleared. There are 13 works which have proved unremunerative, and are never expected to repay the accumulated interest charges on the capital invested in them. Twelve of these were undertaken prior to the introduction of the rules now in force which lay down the conditions to be fulfilled before a work can be classed as productive. The amount of the capital expenditure

on these works at the end of 1896-97 was Rx. 7,509,821. There remain eight works out of the 41, either under construction or not in full operation, the remunerativeness of which has yet to be ascertained. The capital outlay on these eight works to the end of 1896-97 amounted to Rx. 1,264,653.

Protective works. Capital outlay on protective works.

547. In addition to the capital outlay incurred on productive works since 1879-80 a sum of Rx. 2,099,253 had been spent on the construction of protective irrigation works up to the end of 1896-97, of which however Rx. 1,698,424 only has been charged against the grant for Famine Relief and Insurance. Expenditure has been shown against 9 projects, some particulars of which are shown in the following table:—

Province.	Name of work.	Capital outlay to end of 1896-97.	Areas irrigated.			Net revenue.		Net Revenue to end of 1896-97.
			1894-95.	1895-96.	1896-97.	1896-97. (Actual.)	1897-98. (Revised estimate.)	
		Rx.	Acres.	Acres.	Acres.	Rx.	Rx.	Rx.
North-Western Provinces.	Betwa Canal ...	428,086	8,041	35,292	87,306	—1,400	3,500	—42,178
Madras ...	Rushikulya project ...	447,937	27,389	35,917	63,327	1,985	2,600	3,478
Bombay ...	Nira Canal ...	566,550	28,370	23,453	42,553	1,597	6,000	8,285
	Mhasvad Tank ...	207,250	4,226	3,481	7,547	—102	100	—1,845
	Total ...	1,649,823	68,026	98,143	200,733	2,080	12,200	—32,260
	Gokak Canal ...	41,267	...	...	...	...	...	...
	Chankarpur Tank ...	7,225	...	...	...	...	...	...
	Maladevi Tank ...	3,006	...	...	...	...	...	...
	Shetphal Tank ...	748	...	...	...	...	...	...
Punjab ...	Swat River Canal ...	397,184	91,892	81,210	123,087	25,896	30,000	1,424,009
	GRAND TOTAL ...	2,099,253	159,918	179,353	323,820	27,976	42,200	1,391,749

The Swat River Canal was originally sanctioned as a productive work, but there was afterwards reason to doubt whether it would fulfil the prescribed conditions for works of that class, and it was therefore completed as a protective work. It has however proved more successful than anticipated, and is really a productive work; the net revenue has for some years exceeded the interest that would be chargeable had the work been constructed from borrowed money, and represented in 1896-97 a return of 6·52 per cent. The Gokak Canal, to the cost of which Rx. 41,267 has been contributed from the Famine Fund, has since been classed as a minor work, and the last three Bombay works in the table are not

in operation. Excluding these five works there remain four, the capital outlay on which has amounted to Rx. 1,649,823. The gross revenue from these works taken as a whole does not cover the working expenses during ordinary years, and in 1896-97, when there was a large extension of the irrigated area due to famine, the net revenue amounted to Rx. 2,080 only. The revised estimate for 1897-98 shows a net revenue of Rx. 12,200, but this is also a consequence of famine.

Interest is not chargeable against protective works, as the cost of construction is met from revenue, but the capital cost of these four works might have been applied to the reduction of debt to the amount of Rx. 64,990 per annum. To this must be added the average annual excess of maintenance charges over gross revenue, which may be taken as amounting to Rx. 20,060 to the end of 1897-98, or an average of perhaps Rx. 2,010, making the total cost of Rx. 67,000 per annum. This is the price that has to be paid for the protection against famine afforded by these four works.

Areas irrigated by protective works.

548. The extent of this protection is indicated by the areas given in the table, from which it is seen that over 200,000 acres were irrigated from these works in districts which were all subject to severe famine, the result being a considerable addition to the local food supply, and the provision of agricultural employment on their own lands for thousands who must otherwise have required State relief, while the necessity for considerable remissions of land revenue must have been avoided. Allowing for all this it must be admitted that expensive works of this character, the capital cost of which averages over Rs. 80 per acre irrigated even in a famine year, should be undertaken only in districts in which cultivation is exceptionally precarious and drought is of frequent occurrence, unless there is the prospect of a net revenue which will represent a moderate return, though less than 4 per cent., on the capital cost. It may be observed, however, that better returns were anticipated from all these works when they were sanctioned, and that the failure to attain them has been due to causes that were not foreseen, while it is possible that one consequence of the greater utilisation of their power of irrigation during the late famine will be that water will be more freely taken in future, and that their financial position will improve. On the other side may be set the unexpected success of the Swat River Canal, and although this would have been more properly classed as a productive work, the general results of the expenditure on protective irrigation works are not unsatisfactory when this too is included.

Minor works. Importance of minor irrigation works.

549. The irrigation effected by minor works is very extensive and important, and deserves some notice. Many of these are old irrigation works constructed by former rulers of the country, or more recently by district boards or private individuals, which have been taken over by the State, while the number constructed *ab initio* by Government is comparatively few. Some of the systems are of great size, irrigating several hundred thousand acres, but little or no capital expenditure has been incurred on them, though sufficiently ample grants have been made annually for their effective maintenance and gradual improvement. There is some difficulty in determining the financial results of these works, as much of the revenue attributable to them is indirect, forming an arbitrary portion of the

land revenue assessed on the lands served by them, while in some cases there is old irrigation to be distinguished from areas brought under new irrigation in consequence of the improvements effected by Government. It has on this account never been proposed to class these works as productive, or to undertake extensions and improvements out of borrowed money. Provision is however made for the maintenance of minor works out of ordinary revenue, the annual grants usually including a considerable sum for new works or the improvement or extension of old works when regular estimates for these have been sanctioned.

It has already been stated that for some of the larger works *pro formâ* capital and revenue accounts have been maintained, while for others revenue accounts only are kept up, the cost of improvements, etc., being charged to working expenses. For both these classes of minor works the irrigation revenue reports and administrative accounts give ample information. There remains however a third class of generally petty works for which neither capital nor revenue accounts are maintained, concerning which there is less information. These works are of importance only in Madras, where the expenditure incurred in 1896-97, a normal year, was Rx. 187,342, the area irrigated was 2,849,185 acres, and the net revenue, mainly indirect, dependent on the works, amounted to Rx. 516,958. We shall refer again to these works, but it may be noted here that the average area of the irrigation annually effected by them is about equal to that on all other irrigation works in this presidency taken together. In the next paragraph the expenditure on minor works for which no revenue accounts are kept is excluded from consideration.

Expenditure on minor works since 1879-80.

550. The total expenditure incurred since 1879-80 on minor irrigation works, excluding those for which neither capital nor revenue accounts have been kept, amounted to Rx. 8,27,214 to the end of 1896-97, or an average of Rx. 486,718 per annum. The direct and indirect revenue attributable to works of this class to the end of 1896-97 has exceeded the expenditure incurred on new works and on maintenance by over Rx. 6,346,729. It is convenient to show the financial results in this way because for many works capital accounts have not been kept, while on others the charges which have been made to capital have often been nominal only, the cost of improvements, however permanent, being charged to revenue. For those works however for which capital accounts have been kept the net revenue for 1895-96 and 1896-97 yielded a return of 8·24 and 9·13 per cent. respectively on the recorded capital outlay. The financial results of the expenditure on minor works have therefore been very satisfactory.

Increase in area irrigated by irrigation works of all kinds since 1878-79.

551. The increase in the area irrigated by productive and protective works since the Famine Commissioners' report was written has already been shown. The following table shows the total areas irrigated under each class of works in the three years ending 1878-79 and in the three years ending 1896-97. The irrigation under minor works includes that effected from works for which no revenue accounts are kept, although no account has been taken of the expenditure on such works in the preceding paragraph. During the latter period there has also been some irrigation on minor works in Upper Burma, but the areas are not included

in the table, although expenditure on minor works in Burma has been included in the amounts shown in the preceding paragraph.

Year.	Irrigation in India, excluding Burma.			
	Productive works.	Protective works.	Minor works.	Total.
	Acres.	Acres.	Acres.	Acres.
1876-77	4,027,758	...	5,448,199	9,475,957
1877-78	4,736,017	...	5,873,614	10,609,631
1878-79	5,171,497	...	6,547,019	11,718,516
Total 3 years ...	13,935,272	...	17,868,832	31,804,104
1894-95	6,099,952	159,918	7,228,324	13,488,194
1895-96	7,775,936	179,353	7,199,716	15,155,005
1896-97	9,448,692	323,820	7,442,990	17,215,502
Total 3 years ...	23,324,580	663,091	21,871,030	45,858,701

It will be seen that the area irrigated by State irrigation works during the latter triennium has been nearly 50 per cent. in excess of that recorded during the former, but the increase shown is not entirely due to State expenditure. Of that under productive works', 954,907 acres represent the area irrigated during the last three years from the native states' sections of the Sirhind Canal and the Sirsa branch, Western Jumna Canal, the capital cost of which has been defrayed by the states concerned. The increase under minor works is partly due to the transfer to State management of minor works previously constructed. The table shows however that the irrigation from protective and minor works together is about equal to that from productive works, but that the expansion in the last in a famine year, such as 1897, is much greater than in the others. This is due to the more assured supply on most of the productive works which is available to meet an increased demand, whereas in the case of many protective and minor works the supply is seriously affected in years of drought, though it is satisfactory to note that these works were able, taken as a whole, to irrigate a larger area in 1896-97 than has ever been previously recorded. The area irrigated by productive works in 1894-95 was much below the average, owing to abundant rainfall.

General results of the extension of irrigation since 1880.

552. We have now shown in general terms the great extensions in State irrigation which have, in accordance with the recommendations of the Famine Commissioners, taken place since 1880, and that the result has been a great advantage to the State, regarded merely from the direct financial return on the money invested, and apart from their value in increasing the wealth of the country in ordinary years, and in preventing or mitigating famine in years of drought. We will now

consider in greater detail the extent to which the specific recommendations made by the Commissioners for each province have been carried out.

Extensions of irrigation in the Punjab (Cis-Sutlej.)

553. The first recommendation of the Commissioners was the fuller protection of the tract lying between the Jumna and Sutlej rivers by the completion of the Sirhind Canal and the construction of the proposed Sirsa branch of the Western Jumna Canal. The former was formally opened in 1882, irrigation commencing in the following year. In 1896-97 it irrigated 1,338,080 acres, including 394,291 acres from the native states branches. The Sirsa branch was commenced in 1889, and completed in 1895-96, the area irrigated in 1896-97 amounting to 217,572 acres, of which 62,416 acres were in Patiala territory. In addition to this many important extensions of the old Western Jumna Canal have been carried out, principally in the Rohtak and Hissar districts, while the whole canal has been remodelled so as to increase its capacity and remove the defects in its original construction and alignment. In the famine year 1877-78 the area irrigated by this canal amounted to 507,974 acres, which was the highest on record until 1895-96, when it amounted to 667,609 acres. In 1896-97 a total area of 739,752 acres was irrigated, of which 217,572 acres were on the Sirsa branch, and 522,182 acres on the old canal. The canal afforded almost complete protection during the late famine to the Karnal, Delhi, and Rohtak districts, but only partial protection to Hissar, of which district a large portion cannot be commanded by it, while as to the rest the supply of water available from the Jumna is not sufficient to justify many further extensions. A portion of this district will, however, be benefited by the canals below Sirsa which were constructed during the late famine for the utilisation during the monsoon season of the water in the Ghaggar river.

Extensions in the Punjab (Trans-Sutlej).

554. The Commissioners next suggested that other canals might be made which, though not so urgently necessary for famine protection as those just referred to, would bring under cultivation large areas of waste and uncultivated land in the Muzaffargarh, Multan, Montgomery, Jhang, Gujranwala and Sialkot districts, and that apart from the new works necessary for this purpose the policy should be pursued of extending the inundation canals or minor irrigation works in these districts. Much has been done to increase the efficiency of the Sutlej and Chenab inundation canals, which serve portions of the Lahore, Montgomery and Multan districts; and the inundation canals in Muzaffargarh, which draw their supplies from the Chenab and Indus, were taken over by Government in 1881, and have since been greatly extended, the irrigated area having been increased from about 180,000 to 300,000 acres. Two new productive works, the Lower Sohag and Para, and the Sidhnai Canals, have been constructed for bringing under cultivation large areas of waste land in the Montgomery and Multan districts. These have been successfully colonized, the area irrigated in 1896-97 amounting to 208,377 acres.

The Chenab Canal.

555. The most important new productive work which has been undertaken for the purpose of giving effect to the recommendations of the Famine Commissioners is, however, the Chenab Canal, which has been designed to irrigate annually about 1,300,000 acres in the Gujranwala, Montgomery and Jhang districts. The area commanded is 3,823 square miles, of which 2,829 square miles or over 70 per cent. were

until lately Government waste land. This work was originally designed as a small inundation canal, and was commenced as such in 1883. It was subsequently decided, however, to construct it as a perennial canal, and to enlarge its scope, so that it might command the whole of the Rechna Doab, except where the spring level was less than 40 feet below the natural surface. Work was started on the new scheme at the end of 1889-90, and permanent headworks were completed and opened in April 1892. The extensions of the canal and the gradual colonization of the waste lands have been since progressing simultaneously, and the whole work will be practically completed in 1899. The area irrigated in 1896-97 amounted to 520,279 acres, and the revenue realized yielded a return of 6·75 on the whole capital cost, including that incurred on the branches which have not yet been completed.

Attraction of population to uncultivated tracts on introduction of irrigation.

556. The Famine Commissioners referred to the objection that the remunerativeness of works for extending irrigation to waste and uncultivated tracts might be affected by the scarcity of the population, but expressed an opinion that if canals were opened in such districts a sufficient population would not be long in growing up. Experience has demonstrated the soundness of this opinion. The preliminary experiments on a comparatively small scale on the Lower Sohag and Para and the Sidhnai Canals showed that this difficulty had been exaggerated, and were very useful in indicating the precautions to be taken to ensure the success of colonization on the larger scale which has been attempted in the case of the Chenab Canal. The success has been complete. Up to the end of 1896-97 no less than 550,000 acres had been allotted to settlers drawn from the more densely populated districts of the Punjab, and the land allotted to them was immediately broken up and brought under cultivation. For the lands remaining to be allotted the difficulty is not to find settlers, but to select the most eligible among the crowd of applicants. Those to whom land has been allotted have brought their families and have settled down, substantial homesteads have been erected in the new villages, and there are indications on all sides that the prosperity of the settlers is as assured as the financial success of the canal.

Other extensions of irrigation in the Punjab.

557. Apart from the measures thus recommended by the Famine Commissioners, others have been taken for extending irrigation in this province. The Swat River Canal in the Peshawar district has been completed as a protective work, and irrigated over 123,000 acres in 1896-97. Minor irrigation works have also been constructed from provincial funds in the same district, and promise to be very successful both financially and as a protection against drought. The Bari Doab Canal which traverses the Gurdaspur, Amritsar and Lahore districts has been remodelled, enlarged and extended, and large areas of waste land have been brought under cultivation in the last of these districts. The effect of these improvements has been to more than double the irrigated area, which amounted to 327,558 acres in 1878-79 (the maximum until then recorded), and to 731,942 acres in 1896-97. In the Shahpur district a number of inundation canals, which up to 1879-80 had never irrigated as much as 10,000 acres, have been improved and extended, and in 1896-97 irrigated over 35,000 acres. A project for a perennial canal to take out from the Jhelum river and irrigate the lower portion of the doab lying between this and the Chenab river has been prepared and has received formal sanction,

though its construction has been held in abeyance pending the completion of the Chenab Canal. Ground was, however, broken on this work during the late famine for the sake of finding employment for relief labourers in the Gujrat district and its regular construction will soon be taken in hand.

Extension of irrigation in the North-Western Provinces.

558. As regards the Gangetic Doab the Famine Commissioners remarked that all that was required was the completion of the Lower Ganges Canal, of the distributaries of the Upper Ganges Canal, and of the important drainage works that had been found necessary. The Lower Ganges Canal has been completed with the exception of its Fatehpur branch, which is now in full progress and will shortly be opened. The delay has been due to the disaster which occurred to the Kali Naddi aqueduct on the main line of this canal, which was swept away by the extraordinary floods of 1885, but has since been rebuilt. The other recommendations have been carried out.

The Sarda Canal.

559. The Commissioners next referred to the modified project for the Sarda Canal in Oudh, which would provide for the irrigation of 600,000 acres annually at an estimated cost of Rx. 2,150,000, on which it was said that a return of 5 per cent. might be safely anticipated. It had been held in abeyance in consequence of the opposition of some of the principal landowners, but the Commissioners thought that "the scheme ought not to be any longer rejected, unless grave and substantial objections to it can be established." This project has continued in abeyance not only on account of the opposition of the landowners, but because there was serious reason for doubting whether the scheme would be remunerative, and whether it would not result in water-logging the country. The matter is thus referred to at pages 141-42 of the Resolution of the Government of the North-Western Provinces and Oudh on the administration of famine relief in those provinces in 1896-97 :—

"In October last year the failure of the crops threatened to be greater in Oudh than elsewhere, and the question of undertaking the Sarda canal as a relief work came again under discussion. The magnitude of the work, however, was so great, while the injury to the country, if a mistake were made, would be so far-reaching, that the Lieutenant-Governor decided not to enter on this great undertaking as a famine relief work without careful preliminary enquiry. But, in view of the possibility that the famine might continue for longer than a year, Sir Antony MacDonnell considered it desirable to come to some decision on the question whether a canal could be advantageously made or not. Accordingly Mr. M. King, Superintending Engineer, was deputed to enquire into the merits of the project, and he spent four months of the cold weather in doing so. Mr. King's report has not yet been finally considered; but it may here be said that, in his opinion, Sitapur, Hardoi, Lucknow and Bara Banki are the only districts of Oudh into which canal irrigation could be profitably introduced. The facts to be deduced from Mr. King's report are, on the one hand, that the water-supply from the proposed canal would be for these four districts practically unlimited, that a canal could be made for about 4¼ crores, which would possibly return 5 per cent. on the outlay,* and that these districts would be protected from the effects of drought, their wealth greatly increased, and about 265 square miles of shallow tanks reclaimed for *rabi* cultivation.

*The question of return is very uncertain.

On the other hand, the report shows that there are serious, though probably not insuperable, difficulties attaching to the project, arising from the high spring level of sub-soil water, nature of sub-soil and drainage. The construction of the canal continues to

be viewed with disfavour by a large though a decreased proportion of landowners and cultivators and there is some doubt whether adequate water-rates could be realized.

"The matter is still under the Lieutenant-Governor's consideration: but the facts which have been established by Mr. King's enquiries show the prudence of the decision which rejected the work as a famine relief measure."

The last word on this subject has therefore not yet been spoken, and it is not possible to anticipate the final decision. The scheme suggested by Mr. King differs entirely from that referred to by the Famine Commissioners and has yet to be considered on its merits. The four districts which it would serve, especially Hardoi, all suffered severely in the late famine, and as a protection against drought the canal would no doubt be effective. But the cost would be so great, the revenue return so uncertain, and the objections which have been raised on other grounds are so serious, that we refrain from expressing any opinion as to whether the construction of this work is desirable.

The Betwa and Ken Canals in Bundelkhand.

560. The Commissioners also recommended the construction of two irrigation works in Bundelkhand, the Betwa and the Ken Canals. They recognised that it was doubtful whether these works would prove financially profitable within any reasonable period, but observed that there was no question of what their value would be in famine. They urged the construction of these works on the ground that "there is no reason to hope that there will not be a recurrence of famine again in Bundelkhand before many years are past. The people of this province have contributed their share of the public revenues which were applied to render their countrymen secure in the Gangetic Doab, and it is surely not too much to ask that they in turn may receive what protection can be afforded them from the same source. The country as a whole must supply what is needed, and the obligation to assist in this more particularly rests on those who have been already placed beyond danger. Nor can it be forgotten that if this help is not now given by constructing irrigation works, the burden may fall on the province any day with tenfold force from having to feed Bundelkhand during famine."

The Betwa Canal has, as already stated, been completed, but has proved not only financially unsuccessful, but more unsuccessful than was anticipated, owing to the fact that much of the soil is of a character for which water is not required, except in very dry seasons, so that in ordinary years the revenue does not cover the working expenses. According to the figures which were before the Commissioners when they made their recommendation the estimated cost of this work was Rx. 275,000, the irrigable area was stated to be 98,400 acres, and an ultimate net revenue of Rx. 9,600 was anticipated, or about $3\frac{1}{2}$ per cent. on the capital cost. The actual cost has been Rx 428,086, the maximum irrigation in the famine year 1896-97 has not exceeded 87,306 acres, and the working expenses to the end of 1896-97 had exceeded the gross revenue by Rx. 42,178. The actual cost to the State in loss of interest and in working expenses may be roughly estimated at Rx. 20,000 per annum. The value of the crops raised in 1896-97 has, however, been estimated at Rx. 231,081 or more than half the capital cost of the canal, and no doubt many more thousands would have come on to relief if the canal had not been constructed.

The Famine Commissioners stated that the Ken Canal would cost Rx. 460,000, the irrigable area being 88,800 acres, and the anticipated net revenue

Rx. 10,200, or little over 2 per cent. The prospects appeared therefore to be less favourable than those of the Betwa, and owing to the ill-success of the latter it has not been undertaken. The project was again examined in 1896, but the conclusion arrived at was that it should not be taken up until the Betwa Canal had shown better results. But as the Betwa has since irrigated over 87,000 acres in 1896-97, and as the Ken project seems likely to cost about the same as the Betwa but to give decidedly better results, it is now proposed to re-examine the project in greater detail and to bring it up to date. The case will then be reconsidered on its merits, and due weight will no doubt be given to the claims of this district (Banda) in which the distress during the late famine was probably more acute than in any other part of India.

The North Behar Canal suggested by the Famine Commissioners has not been constructed.

561. The new works recommended by the Famine Commissioners in Bengal were in North Behar and Orissa. It was stated that in Behar north of the Ganges, extensive irrigation is possible from both banks of the Gandak in Tirhut, Champaran, and Saran, and that irrigation might be afforded to 1,100,000 acres in these districts at a cost of Rx. 2,200,000. It was admitted, on the strength of the experience gained on the Sone Canal in South Behar, that it might be only after a long series of ordinary years that the cultivators would freely avail themselves of water, but it was pointed out that the cost of the proposed works would be far less than the sum which it had been found necessary to spend in these districts on famine relief in 1873-74. They recommended therefore the preparation of a carefully considered scheme of irrigation from the Gandak, which could be taken up at any time, if thought desirable. The question does not appear, however, to have been taken up, and in view of the very unfavourable financial results on all the productive irrigation works in Bengal, it is doubtful whether such a scheme as that originally suggested, which would involve an annual charge of Rx. 88,000 for interest alone, even if the revenue sufficed to cover the working expenses, can be now recommended. A smaller scheme for the protection of the north of Champaran by means of a canal from the Gandak was, however, drawn up at the commencement of the late famine, and famine labour was employed on the excavation of the main channel, the greater part of which was completed. It is said that the estimate for this canal (the Tribeni) amounts to about Rx. 340,000, but it has not yet been sanctioned, though it will probably be recommended as a famine protective work.

Extensions of Orissa Canals.

562. In regard to Orissa the Commissioners remarked that up to the 1st April 1878 a sum of Rx. 1,750,000 had been spent on the Orissa Canals but that much of the water ran to waste for want of minor channels to distribute it over the fields, and that the area actually *irrigable* in that year was 183,000 acres only. We find, however, that the maximum area actually irrigated in one year up to the date of the Commisssioners' report was 111,250 acres only, in 1878-79. It was stated that by a further outlay of Rx. 93,000, Rx. 405,000 or Rx. 1,360,000 the annually irrigable area might be increased to 287,000, 494,000 or 800,000 acres respectively, and the second of these alternatives was recommended in the hope that after being carried out the situation might be encouraging enough to warrant the completion of the system by the adoption of the third. The capital account on the 1st April 1897 stood at Rx. 2,623,703, but the irrigation actually effected in 1896-97 amounted to 185,048 acres only, the average for the previous

five years being 136,837 acres. These canals have a protective value of their own as water communications, but there appears to be little prospect of their material improvement as an irrigating system.

Other canals in Bengal.

563. The Commissioners also attached much importance to the completion of the line of navigable canal between the Hooghly and Cuttack. This has been effected by the completion in 1888-89 and 1893-94 of the Orissa Coast and Hidgili Tidal Canals. They also referred to the possibility of improving the administration of the Sone Canals. The maximum area irrigated by these canals up to the date of the Commissioners' report was 241,790 acres in 1877-78. In 1896-97 they irrigated 555,156 acres, while the average area in the preceding five years was 392,921 acres.

Major irrigation works in the Bombay Deccan and in Gujarat.

564. In the Bombay presidency there are two distinct irrigation systems, the irrigation works in the Deccan and Gujarat, which depend on the storage of rainfall or draw their supplies from the rivers of the Western Ghats, and the Inundation Canals in Sind. Regarding the former the Famine Commissioners remarked that it would be premature to draw any conclusions as to the future remunerativeness of the Bombay system, which was still in its infancy but certainly did not pay its working expenses. They pointed out the special disadvantages to which these works were subjected owing to the uncertainty of the supplies, the great cost of storage works, the backwardness of the population, and the character of the black soil upon which in ordinary years fair crops of an inferior class can be raised without resort to irrigation. They conclude that "on the whole the Bombay canals must be regarded as a small but moderately hopeful experiment. .....Some portions of the scheme are already doing well, and though we may not share the sanguine expectations of the Bombay Irrigation Department it would be premature to say that the outlay has not been judicious. In any case a considerable fraction, more than 200,000 acres, of the most endangered part of the Province has been protected from future famine. Irrigation works in the Deccan should, however, be prosecuted with caution if they are to be justified by financial success, though they might in some special cases be constructed without certain prospect of profit, as a protection against famine. Viewed as a means of promoting the growth of more valuable products, it is probable that there is a section of the agricultural class prosperous enough to utilize the limited supply of permanent irrigation; but we are inclined to think that railways are more likely to be immediately profitable to the Deccan by opening markets and creating a demand for produce, and that these should have first attention."

The Commissioners state that at the close of 1877-78 the capital outlay on the Deccan and Gujarat irrigation works amounted to Rx. 1,280,000. This must have included the outlay on minor works shown as capital, as the total capital outlay on productive works at the end of 1896-97 amounted to Rx. 1,088,862 only. At the end of the same year the capital outlay on protective and minor works amounted to Rx. 826,056 and Rx. 702,041 respectively, so that the capital account for irrigation works of all kinds amounted to Rx. 2,616,959.

There are seven productive works, of which the most important is the system of Mutha Canals in the neighbourhood of Poona, referred to in the Commissioners'

report, the capital outlay on which at the end of 1896-97 amounted to Rx. 659,893. This is not a purely irrigation work, as it is also the source of the water-supply of Poona and Kirki, and much of the capital has been expended on the water works, from which also a large share of the revenue is drawn. This work yielded a return of 2·12 per cent. only on its capital outlay in 1896-97, but there is reason to believe that the net revenue will in time cover the interest charges. Two of the other works do not pay their working expenses, and taking the seven as a whole the return on capital outlay for 1896-97 amounted to 1·45 per cent. only. The works therefore are not really productive, and may be considered with the protective works, two only of which are in operation, to which reference has already been made in paragraph 547 *supra*. Taking the nine works together it is found that the average area irrigated annually during the five years ending 1895-96 averaged 56,036 acres only, the average return on the capital outlay being 1·28 per cent. only. It is satisfactory to note however that the area irrigated by these works in 1896-97 rose to 79,926 acres, and this area has been exceeded in 1897-98, being estimated at approximately 84,000 acres. The works have therefore not failed in years of drought, but on the contrary have been more than ordinarily effective.

Minor works in the Bombay Deccan and Gujarat.

565. Similarly with minor works for which capital accounts are kept, the average area irrigated for five years ending 1895-96 amounted to 24,088 acres, but this rose to 38,078 acres in 1896-97, and the area for 1897-98 is estimated at 39,665 acres. The financial results attained on these works have been even less favourable than on the major works, but there are in addition a number of minor works for which revenue accounts only are kept, which irrigated 144,826 acres in 1896-97, or more than all the productive, protective and minor works having capital accounts taken together, and yielded a net revenue of Rx. 30,418. The area irrigated in 1895-96 was 143,805 acres, or practically the same as in the succeeding famine year. The net revenue on these works more than covers the nominal interest charges on the minor works for which capital accounts are kept.

Prospects of irrigation works in the Bombay Deccan and Gujarat.

566. The Famine Commissioners stated that more than 200,000 acres of the most endangered part of the province had been protected from future famine. It is not known what was meant by the area protected, but the area actually irrigated in 1896-97 by irrigation works of all kinds was 262,830 acres. It appears however that on all the works for which capital accounts have been opened, the net revenue does not yield a return of much more than 1 per cent. in ordinary years, and that every acre irrigated in such years costs nearly Rs. 10 to the State. The value of the works in famine years is however very great, and if the profits on the smaller works for which no capital account is kept be also taken into account, the expenditure on these works, taken as a whole, is sufficiently justified. There are signs of a gradual increase in the proportion of higher class crops sown; and if, as observed by the Commissioners, the extension of irrigation which takes place in time of drought is to a great extent maintained in subsequent years, it may be hoped that the financial position of these works will gradually improve. It is understood moreover that the irrigation revenue on these works consists mainly of a direct water rate, assessed on the lands for which water is actually taken in any crop. No credit is given to the works for large areas on

which crops may be matured without the aid of canal water, but which would never have been sown if the cultivator had not been assured that he had this water to fall back on if the rains failed. In Madras and other parts of India the irrigation revenue on works of this kind is realized in the form either of a share of a fixed land revenue assessment, made with reference to the water advantages, or of a fluctuating assessment which is levied on the areas on which crops are matured, whether canal water has been taken for them or not. We do not intend to suggest that such a system should be introduced in Bombay, as apart from many obvious objections that may exist to such a course, we are unable to tell whether a revised land revenue assessment on these principles would yield on the whole a higher revenue than is now derived from the combined dry assessment and water rate. We merely wish to point out that under the system which now obtains the irrigation works get credit only for the water actually supplied from them in time of need, but get no credit as in some other parts of India for their value as protective and insurance works, or for the loss of land revenue that might be expected to occur if the works were abandoned. This point appears to us to deserve consideration in connection with the financial results shown by these works.

Urgent necessity for irrigation works in the Bombay Deccan.

567. Although it is evident that irrigation works cannot be considered directly remunerative in the Bombay Deccan, we consider that there are few parts of India in which protective works are more urgently required, and we hope that it may be possible to devote some portion of the Famine Insurance Grant to their construction. The experience gained since the report of the Famine Commissioners fully justifies their warning that great caution must be exercised in the prosecution of such works, but we do not think their prosecution should be discontinued. If by any means those who are directly benefited by these works could be made to contribute a larger share of the cost involved in their construction and maintenance, a more active policy might be recommended; but in any case we think that the value of these works should not be judged too strictly by the financial results, and that due credit should be given to the works, even if it cannot be reduced to a quantitative form, not only for the stability of the revenue assessed on the lands dependent on them, which may be small, but also for their great value in such a country, in all seasons of drought, to the people of the neighbourhood as well as to those whose crops are actually secured.

Irrigation in Sind.

568. As to Sind the Commissioners recommended the development of the inundation canals in that province, not for protection against local famine, but for the sake of increasing the general wealth and food supply of the country. Much has been done in this direction during the last 18 years, and as will be presently shown much remains to be done. Without going into details it may be observed that the average area irrigated by irrigation works of all kinds in Sind during the five years ending 1885-86 was 1,668,000 acres, and that in the five years ending 1895-96 it amounted to 2,334,000 acres, which was exceeded by about 150,000 acres in 1896-97. The works have proved very remunerative, and of late years the average return on the capital outlay has exceeded 6 per cent., while that on major and minor works of all kinds for which capital accounts have been kept amounted to 11·6 per cent. in 1896-97.

569. The first measure recommended by the Famine Commissioners for Madras was the extension of the Godavari and Kistna irrigation systems, and the improvement of the Cauvery works. The area irrigated by these systems appears to have increased by nearly 50 per cent. since 1878-79. The new works suggested by the Famine Commissioners were the Tungabhadra Canal in Bellary, the Kistnagiri reservoir in Salem, the Periyar project in Madura, the Rushikulya project in Ganjam, and the Sangam project in Nellore. We understand that the first of these has been considered, and that the cost was found prohibitive, though a scheme of some sort for extending irrigation in Bellary, where it is greatly needed, is still under investigation. In Salem, the Barur or Kistnagiri tank has been constructed at a capital cost of Rx. 42,504, but has failed to fulfil the conditions of a productive public work, though the gross revenue has more than covered the working expenses. The Periyar project has been successfully completed at a cost of Rx. 835,314, but new irrigation commenced only in 1896-97, and the financial and irrigation prospects of the work are still uncertain. The Rushikulya project has been undertaken as a protective work and has already been referred to. The capital expenditure to the end of 1896-97 amounted to Rx. 447,853. It has not been quite completed, but it irrigated 63,327 acres during 1896-97, and 36,000 acres in the previous year. On the Sangam project Rx. 382,812 had been spent to the end of 1896-97 and the works were nearly completed; the area irrigated in 1896-97 amounted to 79,786 acres, and the net revenue exceeded the interest charges by Rx. 1,286. Another project, the extension of the Kalniganyen channel estimated to cost Rx. 8,710 and to irrigate 23,000 acres, has been sanctioned but has not yet been commenced.

Recommendations of the Famine Commissioners relating to Madras irrigation works.

570. The Commissioners also recommended the transfer to the State of the works of the Madras Irrigation Company, or the Kurnool-Cuddapah Canal. The transfer has been effected, though it is a dead weight on the financial accounts of productive irrigation works, the net revenue averaging little more than Rx. 1,000 a year, while the capital outlay to the end of 1896-97 amounted to Rx. 2,171,349. The canal was however of great value during the late famine, as it irrigated 87,226 acres in the Kurnool and Cuddapah districts. In ordinary years it does not irrigate half this area.

The Kurnool-Cuddapah Canal.

571. The Commission also referred to the necessity of some systematic scheme for the maintenance and improvement of the petty irrigation works, which have already been referred to as minor works for which neither capital nor revenue accounts are maintained. On the importance of these we have already dwelt. The matter appears to have received the attention it deserved. A regular establishment is maintained in connection with what is called the Tank Restoration scheme, and a systematic investigation is made in each district, the results of which are permanently recorded. Large sums of money are devoted annually for the repairs and improvements which have been recommended in the course of these investigations. We are not able to say whether there has been any considerable increase in the area irrigated from these works as a result of this organization, but it should at least serve to prevent retrogression, and it is clear that the importance of these petty works, which as has already been pointed out irrigate

Petty irrigation works in Madras.

between them as much as all the other irrigation works in the presidency taken together, is fully recognised.

Future extensions of irrigation.

572. We have now referred to the principal recommendations made by the Famine Commissioners for the extension of irrigation, and have shown that they have all been carried out, with the exception of the Gandak, Sarda and Tungabhadra canal projects, none of which can at present be confidently recommended, and the Ken Canal in Bundelkhand. We have also shown what has been done in the construction of protective irrigation works, and have described in general terms the expansion that has taken place in the irrigation from minor works. The successful financial results of the prosecution of productive works have also been indicated, and we now propose to consider the field that still remains open for works of this important class. The Famine Commissioners remarked that there were two kinds of irrigation works, those urgently necessary for famine protection in populated tracts, and those which might be designed for the extension of irrigation to areas lying waste and uncultivated, but which might be rendered culturable if water were conveyed to them. Their recommendations were chiefly confined to the former as of primary urgency, but in the case of the Punjab and Sind the Commissioners recognised and urged the importance of the latter. There is now, however, little scope for large works of the former kind, for as has been shown all that were recommended have been carried out, with the exception of the three already named, not one of which if eventually sanctioned is likely to be classed as a productive work. Nor are there many large areas of waste land that could be brought under cultivation by the construction of large irrigation works, except in the Punjab and Sind, and to a small extent in Upper Burma. We will therefore first consider what remains to be done in these three provinces.

Possible extensions in the Punjab.

573. In the Punjab three large projects may be proposed, the Jhelum, the Sind Sagar, and the Montgomery canals. The first of these only has been estimated in detail, and formally sanctioned. It will be shortly commenced and will take five or six years to complete, during which the other projects can be worked out in detail. It is estimated that the Jhelum canal will irrigate 424,000 acres annually, and that the capital cost will amount to Rx. 1,228,000. The lands commanded lie in the Shahpur and Jhang districts.

The Sind Sagar scheme would irrigate the Sind Sagar doab, or the country lying between the Chenab and the Indus. The preliminary investigations which have been made indicate that there are two alternative schemes to be considered. The larger and more comprehensive scheme is for a canal to take off from the left bank of the Indus at or near Mari, opposite Kalabagh, and to irrigate annually 1,750,000 acres. This would probably cost about Rx. 6,000,000. The alternative is a smaller canal to take off from the Indus at a point nearly opposite to Ahmad Sindi, a few miles north of Dera Ismail Khan, which would irrigate about 672,000 acres in the lower part of the doab, and would cost about Rx 2,000,000. No final decision as to which of these alternatives should be adopted can be arrived at until the schemes have been worked out in detail.

The third project is for a canal to take off from the right bank of the Sutlej a short distance below the confluence of the Beas, for the irrigation of the lower portion of the doab lying between the Ravi and Sutlej in the Montgomery and Multan districts. This also has not yet been worked out in detail,

but the later proposals contemplate the annual irrigation of about 600,000 acres, and the probable capital cost may be set down at Rx. 2,500,000. The construction of headworks at the point named would also render it possible to construct a second canal on the left bank of the Sutlej which would irrigate part of the Ferozepore district and might be extended into Bahawalpur and possibly into Bikanir. It is, however, only necessary to mention this possibility, as the prosecution of the scheme would depend on the surplus supply which would be available after meeting the requirements of the proposed right bank canal, and on the co-operation of one or two native states.

Financial prospects of the Punjab projects.

574. These three projects taken together would provide for an addition to the area irrigated by perennial canals in the Punjab of 2,774,000 or 1,696,000 acres, according to the scheme finally selected for the Sind Sagar Doab, at a roughly estimated capital expenditure of Rx. 9,728,000 or Rx. 5,728,000 respectively, or at the rate of about Rx. 3·5 per acre. If we assume that the larger Sind Sagar project is eventually selected, the three canals together will command nearly 4 million acres of land which is now uncultivated and almost uninhabited, and will provide for the annual irrigation of from one-third to one-half of this area. Of these 4 million acres at least half are crown waste lands, the sale proceeds of which, after water has been conveyed to them, would certainly cover more than half the capital cost of the canals, though it is probable that in accordance with the policy adopted on the Chenab Canal, they would not be actually sold, but given out to colonists on long leases, in which case the rentals would be so much additional revenue due to the construction of the works. The remaining 2 million acres are said to have been alienated, though it is possible that arrangements may be made under which Government will resume possession of a portion of them by negotiation with the owners and in consideration of the advantages that will accrue by the construction of canals. This would facilitate their earlier colonization, but even if no part can be resumed there is no doubt but that these lands also will in course of time be brought under cultivation, and assessed to land revenue. On none of these projects are all conditions so exceptionally favourable as on the Chenab Canal, upon which an ultimate return of not less than 16 per cent. on the capital outlay is anticipated; but there is little doubt that they will prove financially remunerative.

Extension of irrigation in Sind.

575. In 1892 a committee was formed for considering various proposals that had been made for the extension of irrigation in Sind. The principal recommendations made were that two new canals, the Jamrao and Shikarpur, should be constructed, and that three existing canals, the Nasrat, Naulakhi and Dad, should be improved and extended. Estimates for all these works have since been sanctioned with the exception of the Shikarpur Canal, for which an estimate amounting to Rx. 254,094, and providing for 123,000 acres of new irrigation, has been submitted by the Government of Bombay. This work is in abeyance pending the completion of the other projects, and some of the details are being reconsidered. The sanctioned estimate for the Jamrao Canal amounts to Rx. 720,377, but a revised estimate has since been submitted for Rx. 797,456 and the anticipated area of new irrigation is 260,000 acres. The sanctioned estimates for the other three projects amount to Rx. 545,132, and it is estimated that they will result in an increase of 277,563 acres in the irrigated

area. The total cost of the five projects may therefore be estimated at Rx. 1,596,682, and the extension of irrigation at 660,563 acres. Of this expenditure it is estimated that Rx. 536,132, or about one-third, will have been incurred by the end of 1898-99, leaving Rx. 1,060,550 for the completion of these works. Other minor extensions and improvements of the irrigation works in Sind are in progress or in contemplation, but it is unnecessary to refer to them, and it is probable that other new works may hereafter be proposed. The figures given will, however, indicate that the extension of irrigation is receiving consideration, and that much yet remains to be done.

New irrigation works in Upper Burma.

576. In Upper Burma three productive irrigation works have been proposed, the Mandalay, the Shwebo and the Mon canals, which will serve the Mandalay, Shwebo and Minbu districts. Of these the first has been sanctioned and is in progress, the estimate amounting to Rx. 323,280, of which Rx. 5,967 only had been spent at the end of 1896-97. It is anticipated that it will irrigate 72,000 acres annually. Estimates for the other two works have also been prepared, though not yet finally sanctioned, and the probable total cost of the three projects may be taken at Rx. 1,027,561, the area of annual irrigation anticipated being 262,000 acres. These works will all be situated within what is known as the "dry zone," the only part of Burma that is considered liable to famine. They will not afford complete protection to this zone, but its area will be considerably contracted by their construction, and a great deal of land at present uncultivated will be brought under cultivation. The resulting increase in food grains will reduce *pro tanto*, if not altogether, the importations of rice from Lower into Upper Burma which take place in years of drought, will tend to keep down local prices, and will set so much more grain free for exportation from Lower Burma to India, when the latter is affected by famine. A striking feature of the late famine was the large exportation of Burma rice to India, where it was carried into districts and provinces in which it was before quite unknown, and where its appearance tended very materially to inspire confidence, to moderate the rise of prices and to mitigate distress; so that it may safely be said that every extension of rice cultivation in Burma increases the resources on which reliance may be placed for meeting famine in other parts of India. It may be noted that whatever may be said on general principles against the duty levied on export of rice in Burma, that duty does not apply to rice exported to India, and the system therefore has to some extent the useful effect of diverting the export to India in times of famine.

Active prosecution of new productive irrigation works recommended.

577. We have now mentioned the principal irrigation works of the productive class, which according to the information before us remain to be constructed in India. Others may no doubt be sooner or later proposed in these and other provinces, and much may perhaps also still be done in the extension of some of the existing irrigation systems, as improved control can be gained over the supply available, or a greater degree of economy attained in its distribution and utilisation. Apart however from the capital expenditure that may be legitimately incurred on improvements of this kind, the works that we have mentioned may entail an outlay of about Rx. 12,000,000, and will lead to an increase of 3,820,000 acres in the area annually irrigated from assured sources of supply. It has been shown that the average expenditure on productive irrigation works since 1879-80, excluding the purchase of the Kurnool-Cuddapah canal, has amounted to Rx 540,000 per annum. If this rate is maintained in future, the programme

would take a little more than twenty years to complete, assuming that nothing was spent from loan funds on the extension and improvement of existing works, though something will no doubt be required for this purpose. We do not know at what rate of progress these works could be most economically carried out. It is undoubtedly true that irrigation projects require far more time and care in elaboration than railways, and that progress in construction must necessarily be slower, especially when unpopulated tracts of country are to be served and the establishment of settlers provided for. But we recommend that these works should be prosecuted as energetically as may be consistent with true economy and ultimate efficiency, even though this may involve a higher annual expenditure in the future than in the past.

Reasons for the policy advocated.

578. In thus following the Famine Commissioners in recommending an active policy in the extension of irrigation we recognise that in one respect the case is less urgent now than when they made their recommendations. Except in Upper Burma there are now no large works which are certain to be remunerative awaiting construction or completion within the districts which are most liable to famine, or in which the pressure of population is most severe. But all other reasons in favour of such a policy hold good, and they are strengthened by changes in conditions which have occurred since 1880, namely, the great extension of the railway system, the growth of the export trade in grain, and the still greater rate of increase in the population. In view of these conditions we have no hesitation in recommending the rapid extension of irrigation to remote districts in Sind and the Punjab, however free they may be from liability to famine, and however scanty their population, as the principal means for giving to the country an additional food supply which is beyond the risk of drought, and for increasing the proportion of secure to insecure cultivation. One of the most remarkable features in the recent famine was the uniform level of prices all over the country which is attributable to the ever-extending system of railways, and which, if it increased the area, greatly diminished the intensity of distress. By some it may be thought that the value of the latter result is much diminished by the effect of the former, but if new grain producing centres can be established in districts which are themselves remote from all danger of famine, the railways which transport their produce to the regions in which scarcity and distress prevail will be an unmixed blessing to all. The completion of the Southern Punjab and other railways will render the grain that may be grown in Sind or the Southern and Western Punjab almost as valuable a reserve for Northern, Central or Western India as if it had been grown in these regions. The demand for export, which is by some viewed with apprehension, will stimulate and encourage the cultivation in these newly irrigated tracts, but as that demand contracts or ceases on the rise of prices in India due to the approach of famine the produce will be available for consumption within the country. Moreover, as the amount of exports depends on other considerations than the quantity of grain in the country, much of this new produce will even in ordinary years remain and form a permanent addition to the food supply.

Financial results that may be anticipated.

579. The new works will therefore tend to reduce the pressure of future famines, and to counteract in some degree the effect of the growth of population, while at the same time adding in ordinary years to the general wealth of the country. Their

construction may also be recommended as a financial investment, and as strengthening the financial resources of the State. We have already shown that the surplus revenue realized by productive irrigation works, after all interest charges at 4 per cent. had been paid, amounted in 1896-97 to Rx. 809,173. This was higher than usual on account of drought, but the actual surplus for 1897-98 was even higher, and when the stimulus afforded by famine has passed away the normal surplus will probably not be less than Rx. 700,000, or nearly half the amount of the famine grant. If the new works are as profitable, taken as a whole, as those already constructed, a surplus revenue of one crore may be eventually anticipated, or in other words the net direct financial profit on productive irrigation will be sufficient to meet two-thirds of the whole estimated cost of famine. The value of these works, and in a less degree of protective and minor irrigation works, in strengthening the financial position of the country may, however, be shown in another way. During the years 1896-97 and 1897-98 famine necessitated remissions of land revenue to the amount of Rx. 1,448,000, and there was great loss of revenue under other heads directly or indirectly attributable to famine. The remissions of land revenue and the whole cost of relief would of course have been infinitely greater if these works had not been constructed; but apart from the value of the works in this respect, the revenue earned by irrigation works of all kinds in these two years showed an excess over the normal of Rx. 981,600 which has been directly attributed to famine. It is therefore a special recommendation of these works that while almost all other sources of revenue are certain to be largely reduced in years of famine, irrigation revenue may be expected to increase, while it will be short only in years of abundant and favourable rainfall, when there is an expansion of other sources of revenue consequent on agricultural prosperity.

New protective irrigation works.

580. We have next to consider the question of protective irrigation works. It has already been shown that with the exception of Upper Burma there is no longer any field for productive works in those districts and parts of the country which are most exposed to famine, but we do not recommend that in such districts new irrigation works should not be undertaken because they are not likely to prove financially remunerative. We have elsewhere recommended that a much larger share of that portion of the famine grant which is devoted to famine protective works should be allotted to protective irrigation works, as long as suitable works can be proposed. By suitable we do not mean works that are likely to be remunerative within a reasonable time, for we think that the cost of such works should not be charged against the grant, but we mean works the cost of which will not, in the judgment of the sanctioning authority, be inordinately high with reference to the degree and character of the famine protection provided, and the direct return, if any, that may be anticipated on their cost in a series of years. We think that as many works as possible of this class should be sanctioned in districts which experience has shown to be very liable to drought, if there is a reasonable hope that they will in the long run directly pay their working expenses. We are not in a position to specify particular works which will fulfil all the required conditions, but we think that such works as the Ken Canal in Bundelkhand or the Tribeni Canal in Champaran should certainly be constructed as protective works if it can be shown that they may be relied on to afford such protection in seasons of drought as will justify the expenditure proposed, or rather as

much of it as may be uncovered by any net revenue that may be anticipated in a series of years. Funds may also with advantage be supplied from the grant for completing irrigation works which may have been undertaken during famine as a means of providing employment for relief labourers, and especially for the construction of masonry or other supplementary works which could not be carried out by famine labour, but which are necessary before the works can be effectively utilised. Lastly, we think that allotments may with advantage be made from the grant for the survey and investigation of irrigation schemes in districts which are liable to famine, so that full programmes of such works may be maintained with a view to their construction in order of urgency out of the famine grant, or to their being started as relief works when distress actually occurs. We do not, however, recommend that protective works should be recklessly constructed without regard to what their real value will be in seasons of drought. We recognise that in the case of many projects that may be brought forward their construction may prove, from the purely financial point of view, a less effective insurance against famine than the application of the amount of their estimated cost to the reduction or avoidance of debt; but we agree with the Famine Commissioners that within certain obvious prudential limits it is but right that some portion of the profits realized from irrigation works in provinces in which all conditions are favourable may fairly be applied to the construction of others in less favoured tracts, from which no direct financial return can be expected, but which will at least afford some protection against drought and famine, and we believe that effect can be best given to this policy through the *modus operandi* established in connection with the Famine Insurance grant. We need but indicate the caution that should be exercised in sanctioning such projects; some works will no doubt be constructed which will not fulfil the anticipations of the designers, but it may be hoped that the results attained on others will surpass them, and as more and more experience is gained a system of protective irrigation works will be gradually constructed in the districts in which they are most needed which will on the whole justify by its efficiency in seasons of drought the whole of the outlay incurred.

Water-supply in State grazing grounds.

581. In connection with the construction of protective irrigation works two points have arisen which seem to us to deserve careful consideration. It has been brought to our notice that in some districts where there are State forests and grazing grounds, these tracts become practically waterless in the dry season, and their utility as grazing grounds in famine time is thereby greatly diminished. During the late famine the loss of cattle in some provinces was very great, and there is reason to believe that owing to the absence of water the grazing grounds in the State forests could not be utilized to the extent they otherwise might have been. The preservation of cattle in time of famine is a matter of no small importance to the agricultural community, and the question arises whether the sufferings of both men and cattle due to want of drinking water in seasons of drought might not be greatly alleviated by the construction beforehand of wells or reservoirs in tracts where it can be shown with tolerable certainty that their presence will be serviceable. The question is a wide one and would require very careful consideration before definite action could be taken. But, having regard to the magnitude of the interests at stake and to the fact that the value of Government forests would be greatly enhanced if a reliable water-supply could be ensured, we think the subject is one deserving of full and careful inquiry. We are disposed to suggest

that wherever there are considerable tracts of country, where in seasons of drought the supply of fodder is liable to fail and a great mortality among cattle may be anticipated, and when within a reasonable distance there are Government forests or grazing grounds to which the cattle might be driven for protection, steps should be taken to ascertain whether there is a possibility of supplying those grazing grounds with tanks, reservoirs or wells capable of affording a sufficient and reliable supply of drinking water for man and beast. If after careful investigation by the Forest and Public Works officers it could be shown in any case that adequate protection could be afforded at a reasonable cost to a large number of valuable cattle that would otherwise be lost, we think it might then be worth while to provide that protection. The necessary funds, if not available from other sources, might legitimately be provided from the Famine Insurance grant under the head "Protective Works."

Advances for sinking wells.

582. The second point we refer to is in connection with advances made to landowners and cultivators for the sinking of wells. Whatever field there may be for many years to come for the construction of protective irrigation works of the ordinary kind, that is canals or storage works, there are probably more tracts liable to periodical drought in which the desired protection may be afforded with greater certainty or at less financial risk by the construction of wells, by means of State advances which would be only partially recoverable, the irrecoverable portion of the advance being a final charge against the Famine Insurance grant. We have not attempted to formulate any scheme under which the money would be applied, but we think that there are some tracts in which State assistance may be given more effectively in this form than in the construction of ordinary irrigation works, and for which a satisfactory scheme of this kind might possibly be devised. We have referred elsewhere in our report to the fact that in Bombay large sums of money were wasted by small land-holders in attempts to sink wells in localities where there was no certainty of finding water, and it is open to consideration whether when wells have to be sunk through rock with uncertain results, it might not be worth while for the State to share part of the cost in view of the protection afforded if water is eventually found. It is also open to consideration whether the State might not bear the cost of scientific aid in the shape of boring operations to ascertain whether or not a supply of water will be forthcoming if the well is sunk. We have been informed that in the North-Western Provinces operations of this nature have been conducted in a more or less systematised method and that the result has not been unsuccessful.

Extensions of minor works.

583. As regards minor works there is little to be said. We have already shown the great usefulness and general remunerativeness of these works, and if we refrain from recommending a larger expenditure on them, it is because we recognise that this can only be arranged for by diverting a larger portion of the general revenues from other heads of expenditure which may not bear contraction. The only suggestion we can make is that new projects which are likely to fulfil the conditions of productive irrigation works, and which are of sufficient importance to justify the opening of capital and revenue accounts, that is, which are estimated to cost more than Rx. 5,000, should be classed as productive works and constructed out of borrowed money, when funds cannot otherwise be found for them out of the ordinary grant for minor works. This would render it possible to construct such works earlier than would otherwise be the case, or would

set free more of the ordinary grant for the improvement of existing minor works or the construction of new ones which could not be conveniently classed as productive. There is no minimum limit to the cost of works classed as productive but the cost of the smallest work hitherto included in that class has not been less than Rx. 37,000. There must be many small and useful irrigation projects which are certain to fulfil the conditions prescribed for productive works, and the multiplication of such works would be facilitated if they could be so classed and constructed from borrowed money, the amount available from the ordinary grant for minor works, after providing for the maintenance of those works, being utilized for extending or improving them, or for the construction of new minor works.

SECTION III.

THE GRAIN TRADE, FOOD SUPPLY, AND THE POWER OF RESISTING FAMINE.

Opinion of the Famine Commissioners with regard to Government intervention in the matter of the food supply.

584. In connection with the question of the food supply of India, the Famine Commissioners in Part I of their report discussed the subject of the direct intervention of Government to control or aid the action of private trade in the supply of food in time of scarcity. At the time the Commissioners wrote, opinion had steadily settled down to the conclusion that, as a rule, such intervention should be avoided, but that exceptional circumstances might justify or even require it, and their own views were expressed in the following terms:—

"We have no doubt that the true principle for the Government to adopt as its general rule of conduct in this matter is to leave the business of the supply and distribution of food to private trade, taking care that every possible facility is given for its free action, and that all obstacles, material or fiscal, are, as far as practicable, removed."

In giving expression to this opinion, the Commissioners took care to point out that a resolution to rely entirely on the ordinary operations of trade to meet the wants of the country in time of famine must unquestionably rest not only on the expected activity of the traders, but also on the probability of the requisite supplies of food being forthcoming at the critical time. After a prolonged inquiry into the outturn and consumption of food in British India and the ordinary surplus available for storage, export, or luxurious use, they arrived at the conclusion that for the time being and until the then estimated yearly surplus was absorbed by the increase of population which might reasonably be anticipated, there was no doubt that the surplus produce of India, taken as a whole, was sufficient to furnish the means of meeting the demands of any part of the country likely to suffer from famine at any one time. As regards the exceptional cases in which the Government might find it necessary to intervene, in departure from the general principle of abstention from interference with private trade, the Commissioners in paragraph 159 enumerated four instances in which this might occur. These were—(1) when it is necessary for the Government to provide food for its own relief works and gratuitous distribution in localities where no arrangements for the supply of food exist; (2) when a stimulus is required to trade where it is sluggish, as, for example, in districts in which communications or the means of transport are defective, or to which access by railways or by water cannot be secured at all seasons; (3) when in purely agricultural tracts, where wages are paid in grain and not in money and the local demand is met not by imports from distant marts but by small purchases from the stores of the agriculturists, the agriculturists refuse to sell and local traders are afraid to import; and (4) when a combination takes place among local dealers to refuse to sell or only to sell at prices unduly raised above the rates of neighbouring markets.

585. During the late famine, the Government of India in its letter to the Government of Bengal of January 4th, 1897, declared its intention of adhering to the principles laid down by the Famine Commissioners, and of rigidly abstaining from intervention with trade save in the very exceptional circumstances in which such intervention might be absolutely necessary. With the object of encouraging trade, the Government of India placed at the disposal of the public freely, fully and promptly all the information it possessed, so as to assist the mercantile community as far as possible in verifying the facts on which their action must depend. Secondly, it guaranteed that in the distressed tracts the demand for food should be an effective demand, that is to say, that those who required food should have enough money to pay for it, the guarantee being provided by Government undertaking to find work for all who were in danger of starvation, and paying them at rates sufficient to buy a subsistence ration, whatever the local current price of food might be. Thirdly, it took care that every possible facility was given for the free action of private trade, and that all obstacles, material or fiscal, were as far as practicable removed. There is a general consensus of opinion among the provincial Governments that this policy was right. It has been computed that in 1896-97 the food-outturn of British India (excluding Burma) was about one-third below that of ordinary years, representing a deficiency of some 18 or 19 million tons. It cannot be doubted that the outturn of the year was much below the requirements of the population, while in some tracts there was virtually no crop at all. Yet, with the exception of about 600,000 tons of Burma rice, there was but little import of food grains from abroad, and there has been no absolute dearth of food. The activity of private trade has been sufficient to distribute existing stocks so as to make good the deficiency in the outturn of the affected tracts, and food has always been purchaseable though at high, and in some remote places excessively high, prices. The exceptional cases in which the intervention of Government was thought necessary were very few indeed; and were all of the nature contemplated by the Famine Commissioners. Instances of these are the Palamau district in Bengal, the Bhadrachalam taluk of the Godavari district in Madras, the Shetphal relief work in the Poona district in Bombay, and in the Central Provinces the Mandla and Balaghat districts, the Sironcha tahsil of the Chanda district and some relief camps and relief centres in other districts. In the North-Western Provinces it is stated that, "in one or two instances in isolated tracts where there was some doubt whether the resources of the petty village traders would be equal to the task of importing the grain required for consumption on relief works and in remote villages, discretion was given to local officers to assist such traders, if necessary, with money advances; but this discretion was little used."

Policy laid down by the Famine Commissioners followed during the recent famine.

586. In the series of questions we drew up for the guidance of witnesses, we included some questions relating to food-stocks and prices and to the grain trade, and we took some interesting evidence on these subjects, chiefly at Calcutta where a number of merchants and business men appeared before us. After a careful examination of the evidence we took and of the general considerations involved, the recommendations submitted by the Famine Commissioners in 1880, which are admirably stated in their report, seem to us to be still completely applicable, and we can suggest no additions, or qualifications. So far as the past is concerned, the policy of almost entire abstention pursued in the late famine is justified by the substantial

Enquiries made do not affect the conclusion arrived at by the Commission of 1880.

degree of success attained. Private trade, we find, proved itself able to regulate the supply of food throughout India. It is true that the conditions were such as not to render necessary the import of food by sea except from Burma, but had such import been required and had there been an absolute dearth of food in India, we see no reason to believe that private trade would not have been able and willing to import from foreign countries, such as Siam, Japan and America. Since 1880 the great extension of the railway system and the lowering of sea freights and the growth of a considerable export trade (not confined to wheat and rice) have very largely equalised grain prices in all parts of India, and the same tendency is at work all over the civilised world. It is to this cause and to the fall in the value of the rupee, now checked by the closing of the mints, that the rise in average Indian grain prices, which seems to be a permanent one, appears to be due. Whether or not it is also in part due to an increase in consumption in India, greater than the increase in production, is a factor of the greatest importance as regards the future.

Estimated annual food grain production and surplus.

587. From the figures given in the table in paragraph 156 of their report, the Famine Commission after careful inquiry came to the conclusion that the annual food grain production in British India (excluding Burma, but including Mysore which was then under British rule) was 51,530,000 tons, that its requirements were satisfied by 47,165,000 tons, and that a surplus of 5,165,000 tons (including a surplus of 800,000 tons in Burma) was available for export or for storage. In his Narrative of the Famine in India our colleague, Mr. Holderness, has carried on the calculation on the data employed by the Famine Commission, and estimates that since they wrote the population of the same area has risen by 17 per cent., or from 181 millions to 212 millions, and the food requirements to 54,308,000 tons. During the same period he estimates that the area under food grains has risen by only 8 per cent., or from 166½ millions of acres to 185 millions, the outturn of which would be 56,000,000 tons. On these figures a surplus of only 1,700,000 tons would result in place of the surplus of 5,165,000 tons estimated by the Commissioners. Some of the witnesses engaged in the export trade, whom we questioned on the point, were of opinion that this result is much below the real average surplus of the present time. The figures in the following table, which is on the model of that given by the Famine Commissioners, have been furnished to us by the local Government or Administration of each province in British India :—

Province.	Population.	Food crop area.	Outturn of food.	Area under non food crops.	Ordinary consumption.					Surplus.
					Food.	Seed.	Cattle food.	Wastage.	Total.	
		Acres.	Tons.	Acres.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1	2	3	4	5	6	7	8	9	10	11
Punjab	21,313,172	19,184,655	5,370,518	3,701,147	4,306,164	375,936	241,673	241,673	5,165,446	205,072
North-Western Provinces and Oudh.	46,905,085	35,911,680	12,250,289	5,178,845	9,773,210	1,081,674	500,000	691,910	12,046,794	203,495
Bengal	74,200,000	50,596,000	24,407,000	9,700,000	17,265,000	1,536,000	1,200,000	1,100,000	21,101,000	3,306,000
Central Provinces ...	9,800,000	14,000,000	3,000,000	3,250,000	1,750,000	300,000	240,000	175,000	2,465,000	535,000
Berar	2,897,040	3,895,302	1,226,965	2,767,994	500,000	30,000	100,000	30,000	660,000	566,965
Bombay (including Sind)	18,035,000	23,223,000	6,092,000	6,078,000	4,028,000	238,000	415,000	304,000	4,985,000	1,107,000
Madras*	28,415,000	21,696,000	8,043,000	5,746,000	5,771,000	363,573	403,970	386,457	6,925,200	1,117,801
Burma, Lower ...	4,408,456	5,493,190	3,766,503	417,294	1,413,000	117,700	70,600	1,400	1,602,700	2,163,803
,, Upper ...	3,362,428	2,063,248	1,414,800	593,479	1,008,700	44,200	26,500	500	1,079,900	334,900
Assam	5,891,000	4,051,000	2,402,900	1,102,000	2,165,800	122,500	...	120,100	2,415,400	−12,500
Coorg	173,055	114,248	51,000	93,000	37,598	4,590	67	2,550	44,805	6,195
Ajmere-Merwara† ...	226,935	192,000	45,000	41,800	40,000	2,000	1,500	1,100	41,600	400
TOTAL ...	215,627,181	180,421,323	68,069,972	38,675,559	48,058,472	4,223,173	3,199,310	3,054,690	58,535,845	9,534,127

* The Madras figures refer only to ryotwari areas for which returns of cropped areas are available, and exclude zamindari and agency tracts for which no returns are available and which comprise about a third of the area of the presidency.

† The figures for Ajmere-Merwara exclude those for the Istimrari Estates.

These figures are only rough approximations based on such data as are available regarding the average acreage under food crops and the average yield per acre. So far as they are capable of comparison, they differ widely from those put forward by the Famine Commissioners in 1880, and it will be seen that they result in a normal surplus of 9½ million tons against the 5 million tons shown in the report of the Famine Commission. This increase is mainly due to much higher estimates of surplus for Bengal and Burma. Owing to the imperfect machinery available for their collection the Bengal returns are particularly unreliable. For some other provinces the estimates differ very largely in the direction of excess or deficiency from those taken by the Famine Commissioners. On the whole we are disposed to think that in the figures supplied to us by local Governments the normal surplus in most cases is placed too high, as the exports from India and Burma by sea for a series of years and the tendency of prices to rise indicate the existence of a much smaller margin. If there is one part of India in which the production of food might be expected to have increased more rapidly than the demands of the population during the last 20 years, it is the province of the Punjab. Yet the figures for the Punjab indicate a surplus of only 205,072 tons as compared with 620,000 tons shown by the Famine Commissioners. The Punjab Government has informed us that the difference is due to various improved methods of computation, as well as to the large increase of population. But as during the five years ending 1896-97 the exports, according to the trade returns, averaged 482,000 tons, we are forced to the conclusion that the Punjab surplus estimate is much too low. It is admitted that the fact that exports from certain native states are included in the trade returns cannot suffice to explain the difference. On the other hand, the surplus of 3,306,000 tons returned for the province of Bengal appears to us to be greatly in excess of the reality, and the local Government takes the same view. The average annual export from Bengal during the five years preceding the famine was only 305,000 tons, or one-tenth only of the quantity estimated from other data to be the surplus. The Bombay return also appears to be far too high, as the export from the presidency never attains high dimensions and prices of food-grains have risen of recent years. These two facts are incompatible with the existence of so large an annual surplus as is returned. For the same reason the Burma annual surplus has been pitched too high. It is only in a very good year indeed that the surplus rice crop of Burma available for export is put by the trade at 1,600,000 tons of cleaned rice.

Having regard to the degree to which the increase of population appears to have surpassed the increase of food-crop area, we are inclined to the belief that whatever may have been the normal annual surplus of food grains in 1880, the present surplus cannot be greater than that figure. But that a substantial surplus still exists in ordinary years there can, in our opinion, be no doubt. We think that the surplus produce of India, taken as a whole, still furnishes ample means of meeting the demands of any part of the country likely to suffer from famine at any one time, supposing such famine to be not greater in extent and duration than any hitherto experienced. If proof is wanted, it is found in the fact that during the late famine, which affected more or less every province in India, except Burma, and is estimated to have lowered the average yield of those provinces by one-third, or some 18 million tons of food grains, the stocks at the end do not seem to have been close on exhaustion, though the only import

from outside was some 600,000 tons from Burma. No doubt the high prices led to great and often painful economy of consumption, but nevertheless the result indicates considerable ordinary surplus and accumulated stocks.

High prices of food grains throughout India during the recent famine.

588. The great and sudden rise in the price of all food grains that occurred in the later months of 1896, the lengthened period for which the high pitch of prices reached was maintained, and the remarkable tendency to a common level of prices throughout India during the famine, are matters which have attracted considerable notice. The question has been very fully discussed by Mr. Holderness in his Narrative of the famine, and among our appendices will be found a table showing month by month from June 1896 to April 1898 average retail prices in certain markets of the food grains most in use in each tract, and the corresponding annual average price for the three preceding years. We do not doubt that the great and sudden rise in prices at the end of 1896 was a reasonable one, to the extent to which reason can be held to govern sudden fluctuations of the kind. There seem to have been considerable stocks in almost all provinces, but no large surplus anywhere except in Burma. The chance of another year of drought had to be kept in mind, and the grain-dealers well know that if India had to go abroad for her supplies she could only buy at prices which to Indians would be famine prices. Possibly in Madras and Bombay the rise may have been intensified to a small extent by the fact to which some witnesses allude that there was a prophecy of a three years famine. This prophecy seems to have affected to some extent the peasants, who husbanded their stocks instead of throwing them on the market; the grain-dealers seem as a rule to have been sceptical as to the continuance of high prices, and to have been ready enough to sell at them, or buy at them, and sell again for small assured profits. Throughout India generally there was activity in the grain trade, but no great tension or excitement. The operations, as a whole, were not on a bold or large scale. The uniformity of prices prevented much speculation, or much movement of grain on a large scale. The rather remarkable absence of speculative dealings on a large scale may possibly have been also due to the well-known tightness in the money market, and to the doubt already alluded to as to the continuance of high prices. There is no evidence of any general practice of combination among grain-dealers to keep up prices, and the evidence of expert witnesses before us was to the effect that this was now as impossible in India as in England. In a few small centres of no importance, where the grain-dealers thought they had a chance of successfully combining to keep them up, there is evidence that naturally enough they did on occasions combine, but the success of such combinations was only slight and temporary and easy to defeat. Where prices were for any length of time exceptionally high, it was due to exhaustion of local stocks and difficulties of carriage. Elsewhere the difference in price above the common level was seldom more than the cost of carriage from places where grain was cheaper, plus a small rate of profit. So far as the evidence before us shows, no large fortunes were made or great losses incurred in the grain trade.

Tendency to equalization of prices throughout India due to railway extensions.

589. It is clear that the very marked tendency to equalization of prices throughout India is due to the great extension of railways and to the opening up of large tracts of country formerly provided with inadequate means of communication. On almost all railways in India the sanctioned rates for grain freight vary from $\frac{1}{8}$ to $\frac{1}{10}$ pie

per maund per mile, though on two lines the permissible maximum is 0·44 pie per maund per mile. Within these limits, the actual charges are at the discretion of the railway administration, and generally vary according to distance. We have ascertained that during the famine special rates for grain freight were sanctioned on all lines, the percentage of reduction varying considerably on different lines and on different lengths of the same line. The maximum percentage of reduction appears to have been 60 per cent. From the information before us as to the rates actually charged during the late famine, we infer that in future famines the rate for the carriage of grain by rail may be estimated at about $1\frac{1}{4}$ annas per maund per 100 miles for distances not exceeding 500 miles, at 1 anna per maund for distances exceeding 1,000 miles, and at about $1\frac{1}{8}$ annas for distances between 500 and 1,000 miles. In 1880, according to the Famine Commissioners, the charge for transport between the most distant parts of India connected by rail was about one anna per seer, and grain could be bought costing 24 seers per rupee in Northern India and sold with fair profit in Southern India at 8 seers the rupee. At the present time grain would be carried 1,000 miles for a little over 10 annas per maund of 40 seers, and wheat selling in the Punjab at 12 seers the rupee could, if on the line of rail, be placed 1,000 miles off and sold at 10 seers the rupee.

The import and export trade of India.

590. In our appendices we give a statement showing imports and exports of each kind of grain into and from British India by sea from and to other countries in each of the twelve months October to September 1891-92 to 1896-97, and during the official year ending 31st March 1897-98. The figures include the trade between Burma and foreign countries, but not between Burma and the rest of India. The effects of the famine on the export trade have been noticed by the Director General of Statistics in his Review of the Trade of India. In 1896-97 (October to September) the imports of grain amounted to 95,560 tons as compared with 12,313 tons in the preceding year, while the exports fell to 1,278,364 tons from 1,952,145 tons in 1895-96 and 2,425,642 tons in 1894 95. The revival of the export trade as soon as the famine terminated is indicated by the figures for the official year 1897-98. Although it is probable that the revival of exports may have operated to maintain prices at a higher level than would otherwise have been the case, we cannot but regard the circumstance as indicative of the existence of greater accumulations of grain than was ordinarily supposed. Among certain classes in India, who do not directly profit by it, there no doubt exists a feeling of bitterness against the export trade. It no doubt tends to prevent prices ever falling very low, but on the whole we have no reason to believe that the trade is otherwise than beneficial to the country. Higher and steadier prices must be good for the landholders and tenants, and ought not to be otherwise than good in the end for the labourers, if their wages rise proportionately, which it is to be hoped they must generally do eventually. The export is so insignificant compared with the production as not to constitute an appreciable drain on the country, and by the stimulus it affords to increasing the area and intensity of cultivation it must, we think, operate to increase the reserve of food in times of scarcity.

Resources and resisting power of the people in times of famine.

591. A question that naturally suggests itself is whether during the recent famine the people have shown increased resources and more resisting power than in previous famines of like severity, and the matter is one that has not escaped the observation of

the various local Governments and their officers who were actively concerned in the administration of relief operations. In Bengal the local Government is very decidedly of opinion that since the famine of 1873-74 the powers of the people to resist the effects of calamity of season have largely increased. This advance in material prosperity is held to embrace even the congested and depressed districts of Behar, but in respect of these districts it is stated that "in Behar the wage of an agricultural labourer, which term includes petty agriculturists who supplement profits of their small holdings by working for wages, is in ordinary times as low as from 1½ to 2 annas a day"; that "this wage is barely sufficient to supply food to the labourer and his family when food grains sell at ordinary prices"; and that "this class has in no way benefited by that rise in prices of agricultural produce which has tended to alleviate the condition of agriculturists." There is ample evidence, we think, that in Bengal generally, excepting certain unfortunate tracts like Nuddea, there has been a marked advance in the material prosperity of the people since the great famine of 1873-74. But as regards the labouring classes in Behar, we are disposed to accept what seems to be the general sense of the Commissioners and Collectors and what indeed is said by the local Government itself regarding them. We doubt whether there has been much improvement in the economic condition of the poorer agriculturists or the labouring population in Behar, or whether they now command greater resources and show more resisting power than in previous famines. We observe, however, that improved communications enable the best of the labouring class to migrate temporarily to other parts of the province and there find employment at seasons when they cannot get it at home, and in this respect it may be said that their condition has improved.

In Madras the condition of the Deccan districts is an interesting and perplexing problem. The economic condition of the population of that region compares unfavourably with that of the population in other parts of the Madras presidency, and this is a natural consequence of the comparative poverty of the soil and the liability of the Deccan to drought. The view taken by the Madras Famine Commissioner in his final report of the famine seems to be that the condition of the Deccan raiyat has not improved of recent years. How far this is the case, it is difficult to say. For some years prior to 1877-78 the Deccan raiyats had been gradually improving in economic condition. Then came the great famine of those years which carried off a considerable proportion of the population and left the remainder in a more impoverished condition than before. To make good the ground lost in the famine was a slow process, but in course of time there ensued what for the Deccan may be considered a succession of good seasons, and a slow improvement in the condition of the small raiyats became apparent. It was noticed by competent observers that though the country was still in a low economic condition and subject as before to frequent droughts, the condition of the mass of the raiyats was steadily if slowly improving. Lands which formerly had little or no value gradually acquired a value, and the raiyats were able to obtain advances on them on easier terms. The extension of communications operated to mitigate the violent fluctuations of prices and so rendered more secure the position of the cultivator. This gradual improvement was checked by the severe scarcity of 1891-92, and before they had time to recover fully from that check the people have again been thrown back by the greater calamity of 1896-97. That the mass of the Madras Deccan raiyats are still very poor and without resources we have

no doubt, and it would probably be unsafe to infer that their power of resistance to famine has increased during the last 20 years. On the other hand, we are not able to perceive any symptoms of general decline.

With regard to the Bombay Deccan and Southern Mahratta country, it is the opinion of the Bombay Government that the occurrence of the late famine has afforded indications of a remarkable improvement in the general condition of the cultivating classes and in their power of resistance. We are not really capable of criticising this opinion, but it seems to us to be rather too sanguine a view of the situation.

In the North-Western Provinces the Lieutenant-Governor draws the general conclusion that the cultivating classes, whether tenants or proprietors, have displayed in the recent famine a command of resources either in the shape of capital or credit and a power of resistance which has not been paralleled in any previous period of scarcity; but that this improvement has not been materially shared by the labouring classes. In this expression of opinion we generally concur, but we are disposed to doubt whether it should not be qualified as regards the small proprietors and cultivators of the country south of the Jumna generally, and in particular of that part of it which includes the Bundelkhand districts and South Allahabad. We see no sign of improvement in that tract, particularly in the districts named. Nor do we see any such sign in the case of the small proprietors of the Hardoi district.

In the Punjab a larger proportion of the cultivation is now protected by irrigation than formerly, and there has been an enormous addition to the credit of the agricultural community resulting from the marked rise in the value of agricultural land that has taken place within the last 20 or 30 years. The proprietors, who farm most of the land themselves, have profited more or less by the higher prices of food grains which have prevailed, and the rise in the value of their land has enlarged their credit. But in the more congested districts, where holdings have been much sub-divided, the small owners are frequently very poor and greatly in debt. The tenant class has no doubt also benefited to some extent from the rise of prices, but they are almost entirely tenants at will, and have little credit and very small resources. The labouring classes in this province are generally well off, and frequently able to save from their earnings.

The general conclusion drawn by the Chief Commissioner of the Central Provinces is that the resisting power of the people has very markedly increased during the past generation, and that the destitution following on severe agricultural disaster is limited to certain classes of the community much more narrowly than before. The cultivators, it is said, have generally withstood the famine with surprising firmness, and their resisting power in the more fertile parts of the province was independent of the relief offered to them; and in the province, as a whole, there has been surprisingly little deterioration of a lasting character. It is open to question whether this view is not much too sanguine. There is evidence that many of the old malguzars and of the old tenants have fallen hopelessly into debt, while others are just able to maintain their position in years of ordinary prosperity. The labouring classes we believe live in tolerable comfort in ordinary years, but they save nothing for bad years, and there are no signs of increased powers of resistance on their part.

General conclusion arrived at by the Commission.

592. The general conclusions we are disposed to draw are that it may be said of India as a whole that of late years owing to high prices there has been a considerable increase in the incomes of the landholding and cultivating classes, and that their standard of comfort and of expenditure has also risen. With a rise in the transfer value of their tenures, their credit has also expanded. During the recent famine these classes, as a rule, have therefore shown greater power of resisting famine, either by drawing on savings, or by borrowing, or by reduction of expenditure, than in any previous period of scarcity of like severity. Whether it can be safely said that they have much improved in thrift, that is in the accumulation of capital, seems open to doubt. There is some evidence to the effect that the export trade and the improvement of communications have tended to diminish the custom of storing grain, as a protection against failure of harvest, which used to be general among the agricultural classes. The skilled artizans, excepting the weavers, have also greatly improved their incomes and their style of living and very few of them required relief. The commercial classes, whose numbers are relatively small, are not generally injuriously affected by famines of short duration. The poorer professional classes suffered severely from rise of prices, but do not come on famine relief. Beyond these classes there always has existed, and there still does exist, a lower section of the community living a hand to mouth existence, with a low standard of comfort, and abnormally sensitive to the effects of inferior harvests and calamities of season. This section is very large, and includes the great class of day labourers and the least skilled of the artizans. So far as we have been able to form a general opinion upon a difficult question from the evidence we have heard and the statistics placed before us, the wages of these people have not risen in the last twenty years in due proportion to the rise in prices of their necessaries of life. The experience of the recent famine fails to suggest that this section of the community has shown any larger command of resources or any increased power of resistance. Far from contracting, it seems to be gradually widening, particularly in the more congested districts. Its sensitiveness or liability to succumb, instead of diminishing, is possibly becoming more accentuated, as larger and more powerful forces supervene and make their effects felt where formerly the result was determined by purely local conditions. We may take this opportunity of remarking that the evidence given before us by many witnesses proved that in times of scarcity and famine in India the rise in price of food is not accompanied by a rise in the wages of labour; on the contrary, owing to competition for the little employment available when agricultural employment falls off the rate of wages offered and accepted is frequently below the ordinary or customary rate. Such wages in times of famine prices are not subsistence wages for a labourer with dependants to support. This explains and justifies the practice which able-bodied labourers often adopt of taking what private employment they can get at their homes or elsewhere, and sending their wives and children to the relief works. The fact also indicates a practical difficulty in the way of the working of a principle which has been laid down by high authority. That principle was that remuneration on relief works should be always fixed so as not to attract labour for which there is existing employment elsewhere. But if the wage for such employment is not a living wage for the ordinary labourer with a family, the wage the family can earn on relief works must necessarily be higher.

SECTION IV.

SUBJECTS OF NATIVE STATES.

The area affected in native states.

593. In the territories of native states the area affected by famine or scarcity in 1896-97 was returned at 82,000 square miles with a population of 7 millions. It comprised the Bikanir, Bhurtpur and Dholepur States in Rajputana; and in Central India the northern districts of the Gwalior State and virtually all the States (of which Rewa is the largest) forming the Baghelkhand and Bundelkhand Agencies, and lying between British Bundelkhand on the north and the Central Provinces on the south. The southern States of Rajputana, the States of Indore and Bhopal, and the southern districts of Gwalior in Central India were not sufficiently affected to require relief operations, although they also experienced short harvests. In the Deccan the south-western districts of the Hyderabad State, which lie in the angle between the distressed districts of Kurnool and Bellary in the Madras presidency and the distressed districts of Dharwar and Bijapur in the Bombay presidency, were affected in much the same degree as the adjoining British districts. In Bundelkhand and Baghelkhand intense distress prevailed as in the adjoining districts of British Bundelkhand in the North-Western Provinces. In Gwalior and Bhurtpur and in the affected parts of Rajputana distress, though severe, was at no time nearly so acute as in Bundelkhand. In Hyderabad the affected districts owing to preceding good harvests entered upon the year of drought with large reserves of food grain in the hands of the cultivators. An account of the measures of relief adopted by the rulers of the states concerned has been given in the Narrative of the Famine in India in 1896-97 by our colleague, Mr. Holderness. We observe it is stated there (paragraph 19) that the measures adopted were not always sufficient to meet the emergency, and in paragraph 94 of the Narrative allusion is made to the high mortality which it is conjectured must have occurred in the affected parts of Central India.

The instructions to the Commission do not extend to native states.

594. Our instructions did not expressly apply to native states, and for several reasons we thought it impossible to interpret their extent in that way. To do so, it would have been necessary for us to carefully examine and compare the several methods of relief adopted in each state, to inquire into the degree of success that attended them, and to advise as to their improvement. In the absence of accurate and reliable reports and statistics and in consequence of the varying and unmethodical systems prevailing, this would have been a long and specially difficult task. To get at the facts with any degree of accuracy it would have been necessary for us to visit each affected state in turn and there to hold much more close and searching local inquiries than was necessary in British territory. The time at our disposal precluded us from attempting such an investigation. We also felt that the character of any recommendations which might be usefully made by us would have to depend on considerations with which we were not competent to deal, as for example upon the extent to which the Government of India may think it politically advisable to put pressure on a particular native state to make it conform to British methods of famine administration, and as to whether the states have the necessary executive machinery for carrying out these methods effectively. These are very wide and important issues lying quite outside the limits of our instructions, the adequate consideration and

treatment of which would have entailed a much more extended inquiry than was contemplated when our Commission was appointed.

Matters connected with native states into which we have inquired.

595. In these circumstances we have not felt it to be our duty to inquire into, and to offer recommendations regarding, famine relief operations in native states. We have however during the course of our inquiries in British districts noticed facts occurring there the origin of which is traceable to native states, such as the influx of destitute persons or the cessation of import of grain owing to prohibition of export in a native state. We have also taken the evidence of two political officers, Colonel Thornton and Captain Pinhey, who were intimately connected with and had special knowledge of famine relief in native states. The evidence of these two officers will be found among the appendices to our report. Colonel Thornton was specially deputed by the Government of India to visit the affected states, to advise the states in the administration of relief and to see that relief was being given wherever wanted and that it was given on right principles. In his evidence before us, Colonel Thornton has given an account of his tour, of the conditions he found in each state and of the suggestions he made for their improvement. He has also made some general recommendations on the broader questions of famine relief, such as the control of emigration from distressed areas and the various forms of relief which should be applied and the method of conducting them. Captain Pinhey was Political Agent of Baghelkhand where, as we have said, intense distress prevailed. He has given an account of the distress and of the measures taken to meet it, and has made some general recommendations for the future.

Treatment of subjects of native states in British districts.

596. A not unimportant question is the treatment of subjects of native states who may apply for relief in British districts. In the Narrative of the Famine in India in 1896-97 (para. 94) reference is made to the miserable condition of the crowds of wanderers from Bundelkhand and Baghelkhand who flocked to the poor-houses in the Nerbudda valley districts of the Central Povinces, and in the course of our inquiries our attention has frequently been called to the inconveniences occasioned by the influx to neighbouring relief works and poor-houses in British districts of destitute wanderers from native states. The Famine Commissioners in paragraph 189 of their report expressed the opinion that the proper course to adopt was to treat all applicants for relief alike whatever their nationality might be, and to admit them to relief without distinction as to origin. In this opinion we concur. We think however that whenever any influx of immigrants from a native state takes place on a considerable scale, the local officers in the British district should endeavour by such enquiries as they may be able to make to ascertain its cause, and that the local Government concerned should promptly bring the facts to the notice of the Government of India. The Government of India would then through its political officers take such measures as it might deem advisable to ensure the proper administration of relief in the native state. We also think that in such circumstances it would be advisable to take steps to direct and control the emigration somewhat in the manner suggested by Colonel Thornton in his evidence. Posts might be stationed along the main lines of communication used by the emigrants where they would be questioned and advised as to where relief was to be found. This might prevent much aimless wandering. The emigrants would not be driven back to their state: but if the local officers in

British territory had reliable information as to the existence of adjacent relief works in the native state they would inform the emigrants of the fact and advise them to go there. In the absence of such information, it would be the duty of the local officers to point out to them where the nearest relief centre in British territory was to be found.

J. B. LYALL.

T. W. HOLDERNESS.

T. HIGHAM.

J. RICHARDSON.

B. K. BOSE.

20th October 1898.



REMARKS BY MR. HOLDERNESS.

In signing the report I wish to make some supplementary remarks on certain portions of chapter V.

Paragraphs 242-3.—The expediency of the measures taken in the North-Western Provinces and Oudh to induce the people to leave the relief works and to return to their ordinary avocations in June 1896, in March 1897, and in June 1897, is here questioned. It is stated that the policy is not recommended in any of the famine codes and cannot be supported by anything contained in the report of the Famine Commission of 1880: and that the measures taken in pursuance of the policy were unprecedented in degree, if not in nature. The opinion is expressed that in 1896 these measures possibly had some connection with the high death-rates which prevailed in August, September and October in two of the four districts of Bundelkhand. With regard to 1897 it is not suggested that these measures were the cause of increased mortality, but it is argued that because in some districts the death-rate was high, therefore there was danger in the policy. The policy is not recommended for future adoption, and its adoption is in fact considered unnecessary for the reason that "except perhaps in the case of very laxly and profusely managed relief works, the cultivators and agricultural labourers leave works as soon as ever they see their way to getting a living off them, and often on the mere chance of so doing."

The measures actually taken and the local Government's reasons for resorting to them are described in paragraph 102 of the report. I consider that the local Government was fully justified in its action, and that in a furure famine in similar circumstances and with similar precautions a local Government would be equally justified in doing what the Government of the North-Western Provinces and Oudh did. I consider that there is truth in the opinion expressed to the Lieutenant-Governor by the officers attending the Hardoi conference of the 13th July 1897 that "the people had grown accustomed to the system of State relief and would prefer to remain upon relief works to returning to their villages or seeking employment in field work," and I am not satisfied that the evidence is in favour of the view that relief works will automatically close as soon as private employment opens. That there may be an element of risk in "increasing tasks and stiffening rates" with the object of making the relief works less attractive is obvious. But it is a risk which it is proper in certain circumstances to take alike in the interests of the public purse and in the interests of the land. There is a still greater danger in allowing the people to remain upon relief works when the land has to be cultivated. The degree of the risk in a well managed famine campaign may be inferred from the fact that our report does not suggest that increased mortality resulted in the North-Western Provinces from the policy adopted in 1897. As regards the two districts in which it is thought that increased mortality may possibly have thereby resulted in 1896, it is sufficient to observe that in the other two adjoining districts where the same policy was pursued the death-rate was not conspicuously high.

I do not attach much importance to the fact that the policy pursued in the North-Western Provinces and Oudh is not explicitly supported in the Famine Commission's report of 1880. I am of the opinion that the relief works system, as now elaborated in the codes, offers greater attractions to the people than the Famine Commission contemplated. I am averse from any pronouncement of

policy which would have the effect of preventing a local Government, which had satisfied itself that there is a real danger of the people staying on relief works beyond the necessities of the case, from taking reasonable measures to diminish the attractiveness of the works. What these measures should be will depend on many considerations. Having regard to the great amount of relief given in the North-Western Provinces up to the setting in of the rains, to the complete control which had been obtained over the famine, and to the large sums distributed for cultivation expenses on the setting in of the rains, I am of opinion that the measures taken by the local Government to reduce the relief works population were reasonable.

Paragraph 256.—I am not satisfied that the Bengal Government was wrong in refusing to sanction the proposal of the divisional Commissioner for the importation by Government agency of 100,000 maunds of rice into the Palamau district in January 1897, and in electing to adopt the alternative plan of offering to private traders a bounty on their imports of rice. The reason why less grain was imported under the bounty system than was anticipated was due to carriage for a larger quantity not being procurable, notwithstanding the efforts made by Government officers to aid traders in obtaining it. Had the Government undertaken direct importation, it would have met with the same difficulty, and so far as it might have obtained carriage it would have interfered with such efforts as the trade was making. With regard to the eventual importation by Government at the instance of the Commissioner of 15,000 maunds of rice, it is proper to mention that this quantity was found to be in excess of requirements, and had at the end of the famine to be disposed of at a loss.

Paragraph 284.—I am not satisfied that the wage scale here described which was in force in the Central Provinces in the spring and hot weather of 1897 was insufficient, or had any injurious effect on the health of the workers. And so far as the remarks in this paragraph imply a condemnation on the local Administration I do not concur. The general tenor of the evidence to my mind is in substantial agreement with the opinion expressed by the Commissioner of the Jabalpur division in a memorandum dated the 4th September 1897 on the wages on relief works in the province. He wrote:—

"The minimum or 'subsistence' wage of the code is, I venture to think, sufficient for a worker on light labour. It is the equivalent of 1¾ lbs. of grain, and ordinarily field labourers seldom eat more than 1¼ lbs. per diem. In these provinces the wage scale has been more closely adjusted to the price level than was the case in the North-Western Provinces, and at the present moment in three out of the five districts of this division a man on the D wage receives 2 annas a day, and has to feed no one but himself. This allowance seems ample. My belief is that the workers save considerably on it. In no other way can I explain the commonly observed disproportion between the banias' daily takings and the daily payments in wages. Moreover only a very small proportion of the workers have ever received more than the D wage, which during the dry months of the year sufficed beyond a doubt to maintain them in good health and condition."

I have agreed with my colleagues in recommending (paragraph 456 of the report) for adoption in the famine codes a scale of wages giving higher maximum wages than the scale adopted in the Central Provinces in the late famine. But in paragraph 458 of the report the expediency of allowing deviations in this matter to be made by local Governments is recognised, and I am of opinion that deviations in the direction of reducing the wage are not unlikely to be found necessary in the practical administration of future famines.

Paragraph 296.—I consider that the reference here made to the special inquiry instituted in October 1897 by the Central Provinces Administration into the cause of the heavy mortality of the monsoon months of that year might with advantage have been fuller. The inquiry originated in an explicit and detailed report from the Deputy Commissioner of Chhindwara that as the result of a house-to-house inquiry which he had made during September in certain villages in his district he had come to the conclusion that the abnormal death-rate then prevailing was due to causes with which privation had little direct connection. The following citation illustrates the character and results of the inquiries he had made. He is here referring to a village in which in September the death-rate was at the rate of 130 per mille per annum:—

"I visited this village and checked the register of deaths. I found that the proprietor had for some months been distributing grain to the poor and that six deaths were those of wandering beggars who had come to the village attracted by this fact. The deaths among residents had occurred among the well-to-do classes with as much frequency as among the poor. The death-roll, for instance, included two Marwaris, a well-to-do Brahmin, a Sunar and five or six Telis, all of them persons in good circumstances, and further enquiries into the deaths among the lower classes failed to elicit one in which privation could be said to have been the determining cause. The malguzar, Ganpat Singh, had in fact taken measures which precluded that supposition. In other villages, namely Singhpur, Koparwari, Ridhora, Jokiwara and Jam, I made similar enquiries and found that the deaths in these villages were equally divided between rich and poor."

It was on this report that the local Administration directed similarly close inquiries to be made in all the districts of the province. The results of these inquiries are contained in a volume of nearly 300 pages. Their general tenor, as stated in paragraph 296 of our report, is that the fever prevalent was malarial fever. But there is much evidence of the same character as that which I have already cited, to the effect that excessive mortality from fever was by no means confined to the poorer classes. Thus the Civil Surgeon of Raipur writes:—

"The causes of the deaths show an enormous preponderance of fever, and next dysentery. As regards the fever the year has been marked by a specially severe visitation of fatal fever of the billious remittent type, accompanied by severe pains in the limbs, violent vomiting and great prostration. I have carefully enquired into the circumstances of the disease in many cases, and I am unable to find symptoms of anything but aggravated malarial remittent, fatal in many cases, in from 5 to 10 days, and it has been prevalent all over the district, and not only in the villages and in distressed parts, but in parts where distress was not so acute, and amongst the well-to-do people in Raipur itself and other towns and large villages."

The Civil Surgeon of Jabalpur writes:—

"Except in the poor-houses and relief works, the great majority of deaths were due to fever, which assumed a very severe type, and which appears to have been particularly fatal to children.

"I find that 38 per cent. of the deaths were of children under six years, this is certainly a very high rate. 56·17 per cent. of the deaths apparently occurred amongst those who had not felt the pinch of distress, and of these just one-half were well-to-do, chiefly land-owners."

In view of these and other similar passages occurring in the volume, I am of opinion the reference to the special inquiry in paragraph 296 is not in all respects a fair summary of its results. I may add that Dr. Hutcheson, the

Sanitary Commissioner, in paragraph 54 of his Memorandum on the Public Health of the Central Provinces wrote:—

"The epidemic of fatal fever in August, September, October and November 1897 was not confined to the Central Provinces, but was common and extremely fatal also in the North-Western Provinces and Oudh. The excessive mortality in the latter province was stated to be due to the aged men and young children in emaciated and debilitated condition speedily succumbing to attacks of malarial fever. In the Central Provinces the autumnal fever of 1897 severely affected all classes, and not merely those affected by privation."

Paragraph 299.—As the final report of the Administration of the Central Provinces which is mentioned in this paragraph may not always be accessible, I give the text of part of the passage to which reference is here made:—

"The habits of large classes of the people of the Central Provinces are such that the task of helping them is one of almost insuperable difficulty. In a poor, backward and thinly populated province where the Government establishments engaged in the work of famine-relief have to cover extensive areas in their circuits, it is of course impossible to watch minutely over the application of help to its proper purpose: no device could ensure that a dole given to a pauper to last him for a month, in a district like Mandla or Bilaspur, should not be squandered in riotous living for a day; nor could any action of the State prevent the Gond and Baiga from roaming the forests and living on their produce until an exclusive course of such diet reduced them to a condition in which no assistance was able to save them from death. In the aboriginal tracts, as has already been noticed, nothing would induce the people to resort to relief works while strong and fit to labour. If the Government had undertaken their gratuitous feeding without exacting as a test the work they were able to do, it would have departed from the principle that the able-bodied must labour in order to be helped, and would have had upon its hands the whole labouring population of the country. And what is true of the aborigines, in the parts where they form the bulk of the population, is true of a large portion of the other classes who inhabit the Central Provinces. It is probable that nowhere in the Province—except possibly in the centre of the Nerbudda Valley—are the people so mobile, or so ready to resort to the means appointed for relief, as they are in the North-Western Provinces, Oudh and Behar. The difference between this Province and other parts of India may be shortly expressed by saying that here relief had to be *forced upon* the people, while elsewhere the people expected and readily availedthemselves of the relief provided. Here distances relatively insignificant prevented the able-bodied from resorting to relief works, while the least attempt to draft workers in bodies from one work to another resulted in the workers melting away; there, it is believed, no difficulty was experienced in getting large numbers of people to work at a distance from their homes and drafting was managed with ease. In such a country as the Central Provinces—and probably everywhere else in India—it is impossible to provide a relief work under proper management at every man's door; there are no works which could be undertaken in the vast expanses of sheet rock which cover the poorest areas of the Satpura districts; and no supervision that is practically possible could be applied to the multitude of sites where work would be necessary to bring it within five miles of every distressed village. These are extreme cases; but each district in the Province contains some area to which such considerations apply, and even in the open and populous parts the readiness of the people to accept relief is markedly less than it is in other parts of India."

In my opinion, though it is permissible to hope that a greater degree of success would with the experience of the late famine in the Central Provinces be attained in combating another famine of like severity and magnitude in that province, anything approaching to complete success must under the conditions of the task be regarded as impossible. In paragraph 239 we say that we have refrained from drawing comparisons between the different provinces as to the

degree of success attained by the measures adopted for the relief of distress and the saving of human life. To this I would add that no comparison is possible between provinces so differently affected by distress as the Central Provinces and the Deccan districts of Madras. In the latter the relief problem was of no exceptional complexity or magnitude. In the Central Provinces the problem was one of the most difficult which has ever taxed an Indian Government.

Paragraph 303.—The statement that the number of persons, not in absolute need of relief, who were attracted to the relief works in Madras by the concessions made by the local Government's orders of 30th March "was probably not large" is not in my opinion borne out by the evidence. The wage was high, the task light, and under the concession by which the task was reduced in proportion to the number of miles walked, or supposed to be walked, daily by the workers, the wage could be earned by a daily walk. The statistics given in paragraph 345 of our report as to the proportion of the population attending relief works in the several provinces show an unparalleled resort to relief works in the Madras districts, which cannot be accounted for by the extent or intensity of the distress there prevailing, and which the evidence clearly connects with the relaxation of the principles of famine administration. If there may be risks in administering relief with the strictness exercised by the Government of the North-Western Provinces and Oudh, there are in my opinion still greater risks in administering it on opposite principles.

T. W. HOLDERNESS.

सत्यमेव जयते


सत्यमेव जयते