

26 MAR 2010



33am

REPLIES TO THE FAMINE COMMISSION ENQUIRIES.

SAHARANPUR—J. R. JACKSON, ESQ., M. D., Civil Surgeon.

CHAPTER I.

My sole experience in such an enquiry is limited to the scarcity which prevailed in this district during the past spring, and solid data, on which alone any trustworthy conclusions can be founded, are almost absolutely wanting. I am therefore incompetent to pronounce an opinion on the various points referred to in section 24, Chapter I.

The accompanying table showing the mortuary return for the years 1876-77 and 1877-78, from August to July respectively, is of interest as throwing some light on the effects of the scarcity on the population at large, and relatively as it effected men, women, and children. The average mortality per mile, was in 1876-77, 25.39; in 1877-78, 27.05—no very great difference in the aggregate, but on analysis reflecting the influence of season and scarcity on the general health. For the first four months, from August to November inclusive, of the two years the mortality was 2.68 per mille per mensem in 1876, against 1.28 in 1877. The latter average was extremely small and was owing entirely to the unusual dryness of the atmosphere in the autumnal months and the consequent absence of malaria. But in December last three important factors came into operation—heavy rainfall, intense cold, destitution. During the second period of four months, from December to March inclusive, the mortality in 1876-77 was 1.45; that of 1877-78, 2.50. The mortality steadily increased in the last season from 3.04 in March to 3.74 in May, and then gradually fell, till the rate in July of the two years closely approximated, being respectively 1.84 and 1.97. The death-rate of the last four months, April to July inclusive, was in 1877, 2.20; in 1878, 2.97.

The total death-rate for the twelve months in review, 27.05, though higher than the usual rate, cannot be considered excessive. It is impossible to state what proportion of the margin above the normal rate is attributable to destitution, what to disease, what to exposure, to cold. If there had been no distress from privation of food there would still undoubtedly have been a higher death-rate than usually prevails. From small-pox alone, which prevailed in an epidemic form during the cold weather and well on to the hot season, there were 1,526 deaths in 1877-78, against 970 in 1876-77. Nor must it be forgotten that extreme cold will claim numerous victims amongst the pauper classes in prosperous as in hard times. Making due allowance then for the above stated unusual mortality from small-pox during the period in review, and the certain though undetermined death-rate from the cold and wet which prevailed during the winter months, it must be allowed that the proportion of the total death-rate dependent on scarcity or famine alone is not excessive; in other words, that as far as statistics, such as they are, prove, the famine has not been sore in this district of the land.

Relative mortality among male and females.

Total deaths	{	Males	...	...	14,062
		Females	...	...	9,833
Ratio of population...	{	Males	...	...	29.12
		Females	...	...	22.15

It is not very easy to account for the enhanced death-rate among men over women.

I suggest that, from the great preponderance of males in the population, there being 54.75 per cent. of males against 45.25 females, many of the destitute females, adults as well as children, have met with protectors among the well-to-do classes. Such instances have come under my observation, and it may well be understood the

men, who are debarred from matrimony under ordinary circumstances on account of ruinous marriage expenses, may avail themselves of the opportunity created by a period of scarcity. I cannot otherwise account for the fact of the lower death-rate among females who, *cæteris paribus*, must be less able to sustain the struggle for existence in famine times than those of the stronger sex.

Mortality among children.

The return shows a smaller death-rate among children during the year 1877-78 than during 1876-77. The numbers are respectively 12,426—13,755. The death-rate among male children exceeded that of the females by nearly 50 per cent.

It would then appear that the increased mortality of the year of scarcity was confined to the adult population.

I fear but little reliance can be placed on such figures.

Statement of mortality of the Sahāranpur district for the years 1876-77 and 1877-78.

Months.	Infants under 1 year.				Boys and girls from 1 to 15 years.				Adults from 15 to 45 years.				Old people above 45 years.				Monthly total.				Ratio of deaths.		Remarks.
	1876-77.		1877-78.		1876-77.		1877-78.		1876-77.		1877-78.		1876-77.		1877-78.		1876-77.		1877-78.		1876-77.	1877-78.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Per 1,000.	Per 1,000.	
August ...	317	328	268	218	245	199	188	117	152	153	97	91	159	110	125	96	873	790	678	522	1·88	1·36	
September ...	459	384	185	179	435	337	86	83	264	184	87	88	188	184	114	94	1,346	1,089	472	444	2·76	1·03	
October ...	512	435	162	173	531	454	107	87	348	334	137	102	304	265	181	124	1,695	1,488	587	486	3·60	1·21	
November ...	262	250	190	195	360	305	138	98	306	236	179	122	263	226	279	171	1,191	1,017	785	586	2·50	1·55	
December ...	176	177	253	249	208	175	189	141	295	208	239	126	190	185	393	187	869	745	1,074	703	1·82	2·21	
January ...	121	114	279	280	192	143	162	124	193	128	283	116	209	161	499	229	715	546	1,223	749	1·42	2·24	
February ...	111	97	292	316	182	156	212	188	145	128	375	160	164	137	595	264	602	518	1,474	928	1·26	2·72	
March ...	213	153	319	309	158	100	298	206	153	103	378	172	160	131	664	343	684	487	1,654	1,030	1·32	3·04	
April ...	336	311	407	341	288	199	349	222	154	109	356	196	205	190	613	330	983	809	1,725	1,089	2·03	3·19	
May ...	435	433	689	488	395	317	565	389	169	141	226	180	199	131	441	327	1,248	1,022	1,921	1,384	2·57	3·74	
June ...	482	408	570	468	389	278	404	284	108	117	205	150	182	147	321	238	1,161	950	1,500	1,140	2·39	2·99	
July ...	302	311	280	292	267	214	236	157	129	112	193	137	170	122	260	186	868	759	969	772	1·64	1·97	
Total ...	3,776	3,401	5,894	3,503	3,650	2,877	2,928	2,096	2,416	1,953	2,755	1,640	2,393	1,989	4,485	2,589	12,235	10,220	14,062	9,833	25·39	27·05	

[This memorandum was sent to me by Mr. Wyer, in reply to a letter which I wrote to him on the subject of local relief. It seems to me well worthy of consideration—H. S. C., Nov. 7th, 1878].

Budaun.—T. R. Wyer, Esq., Officiating Joint Magistrate.

LOCAL RELIEF.

The administrative unit.—Under existing circumstances must be the tahsíl, but I am strongly in favour of forming a series of rural circles of twenty or thirty villages. These circles would be permanent and would be based on area as well as population. Such an organization would be utilized in ordinary times for conservancy, police, poor relief, local taxation, and other purposes. The villages would be grouped round one central village or town of larger size, and, ordinarily speaking, one native official, on Rs. 10 or 12 a month would furnish the necessary superintendence.

But as things are, the tahsíl is the lowest unit of existing organization, and unless rural circles were improvised in a famine time, the tahsíl must be taken as the "unit." At present the tahsíls are very large and are, in my opinion, under-officered.

The tahsíldars, as a rule, are overwhelmed with a burden of judicial and routine work, which makes it impossible for them to be moving about in their divisions. The tahsíldar has at present only one deputy or naib, who is utilized for making local enquiries, &c. The addition of a second naib or assistant would enable two out of the three tahsíl officials to be always out in the villages. I should suggest the sub-division of each of the existing tahsíls and the location of one of the naib tahsíldars at some centre distant from the head-quarters tahsíl. In other words, I think the existing tahsíl organization too weak, even for the ordinary work of administration.

Were our regular administrative agency stronger, we should be kept better informed of the state of the district, and should get the earliest news of an increase of distress. But unless we have the European Covenanted Officers in close and intimate connection with the tahsíl organization, the mere addition of a hand to the tahsíl staff will not do much good; what we want, more than anything, is that one European Covenanted Officer should possess a real and intimate

knowledge of the circumstances of the people under his charge; and this we can never get till the officers live among the people. At present, for eight months of the year, the three European officials are huddled together in the sudder station, and are never to be seen in the district. Two out of the three should, in my opinion, be away from head-quarters for at least eight months in the year. In many districts there are to be found well built bungalows, for the use of the district officers, and at a little expense habitable bungalows might be erected, and thus the residence of an European officer in the midst of the people would be considered possible.

At present, little or no use is made of the subordinate covenanted officers in the work of administration. The Collector alone has any administrative position, and the other two are kept hammering away at the ordinary judicial work, which might be done just as well by native judicial officers and is done, in part at least, by native Deputy Collectors at present. What, to my mind, is so absurd is that English Civilian Officers, of 17 and 18 years' service, should, under the present regime, have exactly the same position and work in a district as a Native Deputy Collector. You must utilize your highly paid European organization in the work of administration if you can hope to administer at all. At present, there is no administration whatever worthy of the name.

Question as to the mode of relief.—This is a question which it is difficult to answer. Under the system which I have proposed, and which, to my mind, is the only scientific system of relief, the zemindars must be held responsible for the support of their tenants and workmen, and if their responsibility be enforced under liberal conditions, we should have few to provide for on relief works and poor-houses.

The zemindars, by the help of our money advances, would keep their tenants and agricultural labourers going, and would also be bound to see that all other persons were either supported in the village or sent to the poor-houses. The duty of the Civil Officers would be to see that this duty was properly performed and to report cases of neglect. With a system of village circles under an inspector, and a couple of assistant tahsildars, all under the control of a European Officer, living in the tahsíl or in an adjoining tahsíl (for ordinarily two tahsís would make up the sub-division under each European Civilian), the work of supervision might be efficiently performed.

If a system of permanent circles be not adopted, a system must be extemporized on the occurrence of a drought or famine period.

Under such a system there would be little or no waste of money, as at present. The natural and proper persons would carry out the relief measures for us, to their own advantage, in a regular, instead of an irregular, way. But for the support of the zamindars and sowkars, we should have had thousands and thousands of respectable men on our hands during the late scarcity. What we ought to do is to systematize what we find already existing in an irregular way. Our relief works, such as they are, are an absolute waste of money, and, to put it roughly, never relieve any one. My own private opinion is that our relief measures in Budaun, last cold season, did not save a single life, and this is also the opinion of most of the officers here.

Under the proposed system, we should recover all the money advanced from the zemindars, and we should not be imposing on them a new responsibility. Had they the means at their disposal they would—i.e., all except the most worthless—cheerfully undertake the duty of administering relief. They want help and encouragement and the Government must see that they do carry out the intentions of Government and keep their people going. In addition, we must have relief works on a small scale; also poor-houses and work-houses, but these institutions will be only for the relief of the very lowest and most miserable of the people.

All direct official efforts to relieve must be as a flea-bite to what the people must do themselves, and would do themselves under a proper system of administration. We are daily losing our hold on the people. We do not live among them. We know nothing, and care nothing about them. The young, vigorous men are heart-broken by deferred promotion and deferred interest in their work. Any young officer who tries to do anything for the people is stigmatized as bumptious, insubordinate, upsetting, &c., &c., as I have found to my cost. The trouble, impotence, and imbecility of our late efforts to meet a scarcity caused by the failure of one harvest should bring the matter forcibly to notice; but I fear that unless the Famine Commission speaks out boldly, things will relapse into the old apathetic, shiftless groove without one effort to put things on a more stable and workmanlike basis.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

LOCAL RELIEF.

BUDAUN.

T. R. Wyer, Esq., Offg. Joint Magistrate.

REPLIES TO FAMINE COMMISSION ENQUIRIES.

BAREILLY—Dr. LOCH, Civil Surgeon.

CHAPTER I.

No. 25.—Comparing the period included between September, 1876 and June, 1877 (both days inclusive) with the same period in the following year, the mortuary returns of the latter show an increase in the deaths from small-pox, fevers, bowel complaints, and “all other causes.” The largest increase was in small-pox, in which the ratio was in May as much as eleven times that of the former year.

Deaths from fever were about three times as numerous in the latter period as in the former on an average: the greatest increase being in January, 1878, when ratio was six times as much in 1877.

Bowel affections caused on an average about four times more deaths in the latter period, March and April, 1878 showing the largest increase, viz., seven times that of the former year's ratio.

From January to June, 1878 the deaths from “all other causes” were more numerous than in the former year, the largest rise being in May, when it was four times the usual ratio.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Muttra.—Dr. W. H. Muschamp, Civil Surgeon.

PREFACE.

I HAVE the honour to acknowledge the receipt of No. 3032A. of 1878, dated Naini Tal, October 8th, and in reply to state that, with reference to No. 1F. of 1878, dated 6th August, I have left several parts of questions unanswered, and more especially since I had no previous experience of famine.

CHAPTER I.

Question 24.—Under the circumstances we have experienced, the mortality must undoubtedly be very great, but in my opinion no approximate estimate, even, could be formed of the number and proportion of deaths due to the causes mentioned in the question. No statistics as to past famines are known to exist, and no special census has ever been taken in the district.

Question 25.—If by the past famine, the year 1868-69 is referred to, no answer can be given to this question, as the mortuary returns had not been commenced in the North-Western Provinces. In the famine now nearly over, the mortality for the period from 1st October, 1877, to 30th September, 1878, compared with the period from 1st October, 1876, to 30th September, 1877, shows an increase to more than double—see extract from tables herewith.

Total number of deaths in the district.

From October, 1876, to September, 1877.

October, 1876 ...	...	2,081
November, " ...	...	1,655
December, " ...	...	1,229
January, 1877 ...	...	915
February, " ...	...	867
March, " ...	...	1,077
April, " ...	...	1,113
May, " ...	...	1,191
June, " ...	...	1,086
July, " ...	...	973
August, " ...	...	1,126
September, " ...	...	932
Total ...	...	14,245

From October, 1877, to September, 1878.

October, 1877, ...	...	1,337
November, " ...	...	1,579
December, " ...	...	1,973
January, 1878, ...	...	1,669
February, " ...	...	1,725
March, " ...	...	2,018
April, " ...	...	2,511
May, " ...	...	2,189
June, " ...	...	3,676
July, " ...	...	2,562
August, " ...	...	2,970
September, " ...	...	6,579
Total	...	<u>30,988</u>

showing a death, rate of more than double that of the previous year.

In comparing the mortality in these two periods, it is to be noted that the months July, August, and September (usually months of greatest mortality) proved exceptionally low in the respect named, in 1877, probably owing, in a great measure, to the absence of rain, while those months have been generally unhealthy in 1878, and much sickness has prevailed amongst the entire native population ; still, making every allowance for an unusually sickly season, it could scarcely be doubted that a large proportion of the deaths returned under fevers and bowel complaints in the present year were connected with insufficiency of proper food.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900 A. of 5th July, 1878.

CHAPTER I.

MUTTRA.

Dr. W. H. Muschamp, Civil Surgeon.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Agra—Dr. A. H. Hilson, Civil Surgeon.

THE undersigned has held the appointment of Civil Surgeon of Agra during the recent famine, and his knowledge is limited to the distress as it occurred in that district. But the various duties which have lately occupied his time have prevented him from devoting much attention to the statistics of the famine, and therefore he is unable to quote these in support of the opinions herein expressed.

This will readily be understood when he states that for some time past there have been over 600 paupers under treatment in the hospital of the Agra poor-house alone, who have been attended only by an hospital assistant, and consequently the supervision of that large number of sick has fallen entirely on the undersigned. Under these circumstances, it is hoped that the delay in submitting these answers may be excused.

CHAPTER I.

Paras. 24 and 25.—It would be difficult, if not impossible, to form a correct estimate of the number and proportion of deaths in this district which, although not directly due to starvation, have resulted from the famine, and for the following reasons :—

1st.—Small-pox has been more than usually prevalent.

2nd.—There have been several severe outbreaks of cholera and fever in the district during the past year.

3rd.—There is reason to believe that deaths have been more faithfully recorded since the issue of circular letter No. 44A.*

*By Government, N.-W. P. of 1877, dated 2nd August, 1877. The mortuary returns show that the total mortality of the district has more than doubled during the past year, and, as far as can be judged, the death-rate seems to have been greatest among the old and the young.

This statement is founded on a comparison of the mortuary statistics of May and June, 1877, with those for the corresponding period in 1878, and also upon the death returns of the principal poorhouse in Agra during the past months of the current year.

A very singular circumstance is brought to light by a comparison of the mortuary returns of Aligarh and Mainpuri, two districts which adjoin Agra, with those of the Agra district itself.

In the former districts the price of grain has been only about one seer per rupee cheaper than at Agra during the past year, and there have been no relief work or poorhouses in them, except, I believe, on a very small scale; yet the death-rate in them has not been higher than in the Agra district, where thousands have been fed for months past at the expense of the State.

May it not be inferred from this that relief works and poorhouses are not so instrumental in averting a high mortality during periods of famine as is generally supposed?

Indeed, it is probable that had no assistance been given by Government to the poor in the Agra district, the mortality during the past year would not have been much higher than it has been, and for the following reasons :—

1st.—The streams of native charity cease in a great measure to flow when Government begins to feed the poor.

2nd.—Those most in need of assistance show a great reluctance to resort to the relief works or to the poorhouse.

3rd.—The relief works are frequented by a large number of able-bodied individuals, and it has been found in this district that the great majority of deaths in the poorhouse occur in persons who have never been on the relief works, and who have come or been brought to that institution in such a reduced condition that they die within a few days after admission.

Under these circumstances, it becomes a question whether in times of distress among the poor, owing to the high price of cereals, it would not be better to remit a portion of the land revenue and hold the heads of villages responsible if the mortality, which would always be indicated by the mortuary returns, rose much above

the average of ordinary years. The effect produced by the present famine on the birth-rate cannot now be accurately determined. Comparing the birth-rate of the first seven months of the year 1877 with that of the corresponding period of 1878, it would seem that the births in the municipal circles have increased since the famine commenced.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

Farukhabad—Surgeon R. Reid, District Mortuary Registrar.

CHAPTER I.—SUPPLEMENTARY.

Statement showing the number of deaths distinguishing adults from children and males from females according to circles in Farukhabad district, called for by the Collector and Magistrate of the district per his letter No. 926 of 10th September, 1878.

NOVEMBER TO MARCH,																	
Names of circles.		1875-76.					1876-77.					1877-78.					
		Children.		Adults.		Total.	Children.		Adults.		Total.	Children.		Adults.		Total.	
		Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		Males.	Females.				
Number.		Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Total.	
<i>Town circles.</i>																	
1	Allahganj	5	3	6	4	18	7	6	7	8	28	22	8	50	18	98	
2	Kaimganj	17	3	24	24	68	11	6	26	24	67	20	15	69	15	119	
3	Shamsabad	8	6	20	29	63	13	5	13	13	44	116	70	85	28	299	
4	Farukhabad	250	204	262	259	975	202	163	162	167	694	322	325	604	287	1,588	
5	Fatehgarh	39	34	29	36	138	34	30	20	25	109	30	28	51	33	142	
6	Do. Cantonment	7	7	21	9	44	8	8	9	11	36	9	11	45	14	79	
7	Chibramau	20	15	23	24	82	10	11	15	18	54	31	18	45	22	116	
8	Talgram	15	11	20	19	65	13	13	12	14	52	26	30	59	28	143	
9	Kanauj	20	5	59	25	109	21	14	46	57	138	28	26	96	33	183	
Total		381	288	464	429	1,562	319	256	310	337	1,222	604	531	1,104	478	2,717	
<i>Rural circles.</i>																	
10	Kampil	71	54	125	66	316	67	49	82	72	270	255	244	599	176	1,274	
11	Allahganj	38	31	55	37	161	58	51	51	32	192	250	217	484	123	1,074	
12	Kaimganj	163	110	197	173	643	136	103	187	151	577	365	325	833	252	1,775	
13	Shamsabad	32	21	101	56	210	76	27	81	49	233	182	133	405	102	822	
14	Aligarh	73	70	145	123	411	111	89	134	98	432	125	76	338	58	597	
15	Nawabganj	48	20	64	61	193	46	55	58	55	214	227	204	392	110	933	
16	Farukhabad	70	68	84	74	296	69	61	92	62	284	151	144	375	124	793	
17	Muhammadabad	136	108	274	211	729	157	126	222	175	680	477	394	837	298	2,006	
18	Fatehgarh	23	28	59	34	144	26	14	30	29	99	40	29	131	43	243	
19	Kamalganj	165	117	284	191	757	123	161	203	160	647	261	252	510	148	1,171	
20	Chibramau	112	88	239	144	583	78	85	158	117	438	157	160	328	153	798	
21	Gursahaiganj	50	57	98	75	280	91	69	90	66	316	122	122	275	106	625	
22	Jalalabad	20	30	83	53	186	51	32	94	67	244	50	35	180	74	339	
23	Miran-ki-Sarai	74	52	198	127	452	62	35	175	122	394	87	71	268	109	535	
24	Talgram	20	32	58	51	161	27	29	56	31	143	94	89	91	33	307	
25	Saurikh	61	42	158	105	366	71	73	194	127	465	131	109	315	161	716	
26	Tirwa	80	50	168	147	445	110	78	188	165	541	170	103	335	166	774	
27	Thatia	55	39	87	68	249	40	34	72	71	217	56	65	138	57	316	
28	District jail	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Central prison	...	...	4	...	4	...	...	...	...	...	...	...	...	...	...
Total		1,291	1,018	2,481	1,796	6,586	1,399	1,171	2,167	1,649	6,385	3,200	2,772	6,834	2,292	15,098	
GRAND TOTAL		1,672	1,306	2,945	2,225	8,148	1,718	1,427	2,477	1,986	7,608	3,804	3,303	7,938	2,770	17,816	

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Mainpuri.—Dr. W. A. D. Fasken, Civil Surgeon.

PREFACE.

The district I propose to write of is that of Mainpuri in the North-Western Provinces. I have been in this district since November, 1877. On my arrival the scarcity of 1877 was over. I have, however, had opportunities of observing famine operations during the hot weather of 1878, having been in charge of the famine relief hospitals on the canal works at Shikohabad, North-Western Provinces.

CHAPTER I.

Question 24.—I have no information by which an estimate could be formed, with accuracy, of the proportion of deaths which are due to the concomitant diseases and privations of famine, but from my own observations I should say that about 75 per cent. of deaths, during famine, were due, not so much to actual starvation as to privations which adult in health can bear with safety. The system, debilitated and lowered, by the diminution in the amount of food to which it has been accustomed in times of plenty, is rendered a prey to diseases which end in death. Diseases, which might be tided over in the well-fed adult, attain their worst type where there is no physical stamina to withstand the onset. The assimilative functions being all deranged, diarrhoea and dysentery ensue with the most fatal results. The old, sickly, and children being not the only victims, but young and middle aged adults dying from disease from which they would not have died in time of plenty even if they had contracted them.

I am not in possession of any statistics that show the depopulation caused by famine in this district.

I believe no census has been taken since the famine. There is no doubt, however, that the brunt of the scarcity falls on the poor cultivating class, the inhabitants of the country as distinguished from the inhabitants of the town. I think the class of people most affected in the early stages

of the famine continue to feel the same pressure with increasing severity all through. In the latter stages a class of people (consisting of the more well-to-do) feel the effects of the famine who at the beginning it did not affect. I consider that the loss of life is greater among females than males, and children than adults.

The district of Mainpuri has the great benefit of several canals passing through it; a large proportion of it is under irrigation and therefore the effects of scarcity are much mitigated.

Question 25.—I do not think much reliance can be placed on the mortuary returns. I have compared the results of the last four years for the same months of the year, *viz.*, from June to November, with the following results:—

Total deaths for the six months—			
1874 shows	...	...	9,765
1875 „	...	...	11,153
1876 „	...	...	7,369
1877 „	...	...	6,712

The year 1877 was the famine year, and the six months here shown were those at which it was at its height, but the total number of deaths is less than in the preceding three years: it would appear that this result is not correct. It is, however, certain that Mainpuri did not suffer severely compared to other districts, mostly due to the extensive irrigation.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

MAINPURI.

Dr. W. A. D. Fasken, Civil Surgeon.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

*Etáwah—Surgeon-Major W. P. Harris, M.D.,
Civil Surgeon.*

Addendum to replies to the questions of the Famine Commission submitted by Doctor W. P. Harris, Civil Surgeon of Etáwah on the 3rd September, 1878 (included in those furnished by the Collector).

Question 1.—What district I propose to write of ?

Answer.—The Etáwah district.

Question 2.—Nature of connection with that district.

Answer.—The Civil Surgeon of it.

Question 3.—Over what length of time it has extended ?

Answer.—Since January, 1877.

Question 4.—What opportunities for observing famines ?

Answer.—None until the present famine. I have had no experience in carrying out measures of famine relief.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

ETAWAH.

Surgeon-Major W. P. Harris, M.D., Civil Surgeon

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Lalitpur.—Dr. C. Briscoe, Civil Surgeon.

PREFACE.

I have the honour to submit herewith the answers to the questions of the Famine Commission. My experience is limited for a period of two years and four months on civil duty, and I have not had any opportunity of observing famines or any experience in carrying out measures of famine relief.

CHAPTER I.

Question 24.—No data exist from which any answer to the first question in this paragraph could be given.

Though there was slight distress and the rates of food grains were high, there has been no absolute famine in this district. A poor-house was established, chiefly for emigrants from distant parts who selected this route on their emigrating to Malwa. It was supported by private subscriptions, was opened on the 22nd September, 1877, and closed on the 9th January, 1878; during that period 22 men, 29 women, and 13 children were admitted, six old men died and four women died.

A census was taken in 1865 (after which came the drought year 1868-69) and another census in 1872, the latter showing a decrease of over 35,000 of population, but it is impossible to state how far this decrease is due to deaths, emigration, or decreased birth-rate, but it must certainly be attributed to the effects of the great drought and consequent scarcity of the year known as Sambât 1925.

Question 25.—No such special census was taken and no statistics of previous famines of such a character exist, as would enable reliable conclusions to be drawn regarding mortuary returns; in fact, there were no such mortuary returns kept.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

LALITPUR.

Dr. C. Briscoe, Civil Surgeon.

**Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.**

Benares—C. A. Daniell, Esq., Commissioner.

Preface.—In accordance with the orders of your Circular No. 1F., dated 6th August, 1878, I have the honour to forward answers to such of the Famine Commission's questions as I feel myself qualified to take up.

The relief works and poorhouses of the districts of Basti, Azamgarh, and Gorakhpur have been more or less visited by me, but my chief experience and remarks refer to the relief works of Basti. These opened on 28th May, 1878, and are now still existing on a small scale. There are several questions laid down for Commissioners to reply to, which I have left unanswered, as I have avoided any speculative replies. If there are however any points on which my opinion may be considered of any service, I will of course respond if called on.

CHAPTER I.

Question 26.—I am unable to suggest any special local taxation to recoup State funds expended in any particular locality. The system of mutual assurance should hold good over as large an area as possible, to the extent of a presidency certainly. The circumstances of external trade affect the condition and prospects of the people when scarcity and drought are present. The profits to dealers and producers in countries and tracts outside an afflicted province or division in consequence of such local famine are fit subjects for inclusion under taxation for mutual assurance. Bodies, such as municipal bodies, may be made to attend to their own poor, but I doubt if special taxation, beyond the general mutual assurance, is at present possible.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

BENARES.

C. A. Daniell, Esq., Commissioner.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

Basti—Dr. T. M. Sullivan, Civil Surgeon.

CHAPTER I.

Question 24.—No estimate can be formed, as there is no data to guide one.

No statistics exist.

An extra column in the mortuary return for deaths by starvation would, in time, give some data to form an opinion.

No census was taken, but from personal observation I am of opinion that the first people to feel the effects of famine are children under five years of age, and that the mortality is greater among male adults than among females, and greater among children than among adults; next to the children the aged suffer. From a study of the vital statistics of the adjoining districts for the last three years, one is struck with the fact that while the weather is warm the death-rate is more or less uniform; whereas from November to March there is a striking increase in this district alone, indicating, as I take it, the poverty of the people here and their inability to withstand vicissitudes of any kind. The want of stamina of the people of this district has also been noted by the Central Jail Superintendent at Benares, where the people of this district succumb to malevolent influences more readily than those of others. This is owing in a great measure to the climate and peculiar food of the people. The country for a great portion of the year is water-logged and is bordering on the tarái: the principal cultivation is rice, the coarser and poorer descriptions of which, with a few vegetables, form the principal food of the poorer classes.

Question 25.—The mortuary returns show that the mortality increased all round, but especially among the aged and children. This increase is marked as the weather gets colder, and keeps increasing with the cold and diminishes again as the weather gets warm.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

BASTI.

Dr. T. M. Sullivan, Civil Surgeon.

REPLY TO FAMINE COMMISSION'S ENQUIRIES.

Basti.—*T. M. Sullivan, Esq., Civil Surgeon.*

Supplementary.

CHAPTER I.

My remarks were, with reference to the mortality of the adjoining districts, "while the weather was warm the death-rate was uniform" (in this and the adjoining districts); "as winter approached there was a striking increase in this district alone," *i. e.* comparing the mortality of the adjoining districts, the mortality of this was higher than the others.

In further elucidation of what I meant, I append a comparative statement of deaths from November to March of the years 1876-77 and 1877-78, of the three nearest districts of the North-Western Provinces, from which it will be seen that the mortality of Basti is higher than either of the others in each of the months noted in both years with one exception.

I also append a statement of deaths from fever for the last six years, in which it will also be noted that the mortality from this disease is always greatest in the winter months.

Comparative statement showing the ratio of deaths in the Basti district.

		1876-77.				1877-78.			
		Gorakhpur.	Azamgarh.	Jaunpur.	Basti.	Gorakhpur.	Azamgarh.	Jaunpur.	Basti.
November	...	1.52	1.20	1.07	1.61	2.43	1.31	1.11	1.88
December	...	1.63	1.04	1.08	1.70	2.94	1.32	1.05	3.32
January	...	1.25	.87	.97	1.34	3.40	1.63	1.44	4.69
February	...	1.14	.70	.64	1.21	2.58	1.54	1.06	3.33
March	...	1.71	.95	.85	2.85	2.50	1.86	1.57	2.89

Comparative statement of deaths from fever in the Basti district.

		Deaths from fever.					
		1873.	1874.	1875.	1876.	1877.	1878.
April	...	1,292	1,073	966	1,690	2,394	3,203
May	...	1,086	879	754	1,738	2,479	2,150
June	...	788	723	703	1,454	1,826	2,430
July	...	846	933	682	1,327	1,730	2,959
August	...	1,250	1,284	774	1,534	1,835	6,110
September	...	1,526	1,212	1,150	2,025	1,685	5,169
October	...	1,660	1,370	1,371	1,905	1,819	...
November	...	1,764	1,318	2,202	1,973	2,252	...
December	...	1,600	1,188	2,033	2,053	4,179	...
January	...	1,940	1,330	781	1,558	1,541	5,452
February	...	1,326	1,215	736	1,371	1,387	4,253
March	...	1,424	1,199	817	1,734	2,018	3,572

CHAPTER I.

Supplementary,

BASTI.

T. M. Sullivan, Esq., Civil Surgeon.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Gorakhpur.—*Surgeon-Major C. Prentis,*
Civil Surgeon.

THE following answers refer to the Gorakhpur district, of which (with the exception of two years at home) I have been Civil Surgeon since the beginning of 1869, and they are derived from experience gained in 1874, when a period of scarcity necessitated the establishment of relief works, and poor-houses, and during the past few weeks.

CHAPTER I.

Answer to Section 24.—As there has never within the memory of man been a famine in the Gorakhpur district (for 1874 though a year of scarcity cannot be called a year of famine) I am quite unable to answer this question. Doubtless, in 1874, many suffered in health from eating berries, roots and other unwholesome food, but the mortuary returns for that year show no very marked increase in the number of deaths from bowel complaints, the disease that would naturally be produced by such food.

Answer to Section 25.—No information is to be obtained from the mortuary returns, for excluding epidemic small-pox and cholera diseases that may occur in any season, the deaths in 1874 were very little above the average, and the increase was mainly due to fever.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

GORAKHPUR.

Surgeon-Major C. Prentis, Civil Surgeon.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Ghazipur.—By Dr. A. Deane, Civil Surgeon.

I WRITE of the Ghazipur district where I have been Civil Surgeon for over 2½ years, but I have had no famine experience except the scarcity of the present year.

I have however given some attention to the 8 chittacks ration, and as far as I could, watched the operation of the poor-house here.

CHAPTER I.

Questions 24 and 25.—I think some estimate may be given from the Mortuary Returns. In this district, for instance, there were, I think, no deaths from actual hunger, but there was a very large increase in the mortality due to eating improper food, for a long time. In the first half of 1877, when grain was very abundant and prices low, the total number of deaths was 10,466. In the second half of the year grain was much dearer, but still the distress was not very great: the deaths in it numbered 13,816. It must be remembered, however, that the second half of a year is always more unhealthy than the first, and in that way no great rise might be accounted for. In 1876, the numbers were reversed, those for the first half being 14,636 against 13,963 for the second half. In the months of April, May and June, however, cholera and small-pox accounted for no less than 3,082, whilst in July, August and September, the deaths from those diseases only amounted to 793. Both years therefore bear me out that for ordinary diseases the second half of the year is most unhealthy. Now in the present year 1878, prices still continued very high, people's stores of food ran short from the long continued drain, and it is from the statistics of this year we are enabled to form some estimate of the mortality from insufficiency of and improper food. Taking then the returns for the first nine months of 1876, we find 22,044 deaths, for the first nine months of 1877 we have 17,436, whilst for the nine months gone by of 1878 we have 34,914. In other words, nearly twice as many have died in this year as

in an ordinary one. As we had no epidemics I think we may fairly put the excess down to insufficient or improper food.

As usual the first three months of the second half of the year are much more unhealthy, or at any rate have a much larger proportionate number of deaths than any three months of the first half of the year. Indeed it equals, very nearly, the other six months the figures being for the first six months 17,436, and for the next three months 17,252. A large number of the deaths in August and September were in my opinion caused by diarrhoea from eating new or unripe grain.

I have no statistics as to any past famine, and no special census has or could be taken this year yet.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

GHÁZIPUR.

Dr. A. Deane, Civil Surgeon.

KUMAUN.

W. R. J. BRERETON, Esq.,
OFFICER IN CHARGE OF THE RANIKHET FORESTS DIVISION.

HAS been in charge of the Ranikhet Forests Division since 1877.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Kumaun—Major-General the Hon'ble Sir H.
Ramsay, C.B., K.C.S.I., Commissioner.

I HAVE the honour to acknowledge the Government resolution No. 1900A., dated the 5th July, 1878, with accompanying correspondence and subsequent orders on the same subject. I did not attempt to reply sooner, as I wished to know if the Senior Assistants had furnished the requisite data, as far as that was available.

CHAPTER I.

Para. 9.—The reports submitted by the district officers will, I trust, give all the information available on the subject. I had no selection of officers for this duty, and the district officers had no choice, as they had each only one Extra Assistant to whom they could delegate the work; and in the Taráí Mr. Macdonald has at present no assistant, but his thorough knowledge of the parganas under his charge will enable him to give a correct opinion.

Para. 26.—The province of Kumaun is altogether different in every way from other parts of the North-West. We have no labouring classes apart from cultivators. Even the low-caste Doms, who to some extent are dependent on the cultivators, generally cultivate land or they are artizans of some kind, or have some occupation by which they live. The condition of our cultivators is almost rayatwari. The people are probably individually better off than any peasantry in India. With some exceptions they have good houses; they generally keep a store of six months' grain in hand; their wives have ornaments; and mostly all have some property which they can dispose of in case of difficulty. They cultivate sufficient mandua, maize, and other coarse grain to feed themselves, while they sell rice and wheat to pay the revenue, purchase clothes, salt, gúr, and other luxuries. A complete general famine throughout the hills is unknown. I saw the great famine of 1837, when grain sold at 12 seers per rupee at Almorá, which was considered a famine price. Within the last 15 years the price of wheat has

frequently been eight seers the rupee, but I have seen no sign of distress. The central parganas of Garhwál were certainly in great straits last cold weather, but in the upper parts of the district grain was abundant and sold at reasonable rates. There is a good deal of irrigated land in the hills and a great stretch of cultivation at the foot of the hills. About one-third to half of the population live in the Bhábar for six months ; and although there may be scarcity in some parts, or even a want requiring relief, I do not think a famine requiring relief works, as in the plains, could ever occur in the hills. With the Bhábar stores of grain, and advances which would be repaid, no further assistance would ever be required, because with the latter the able-bodied could go to the northern parganas, where grain is always to be had, or they could purchase in the Bhábar, and with the assistance of roots, berries, &c., procurable, the hill people, if looked after at the proper time, ought never to know the horrors of famine. My experience is confined to Kumaun, and I can offer no general suggestion to meet the case of recovering expenditure as regards other parts of India. I consider that advances made in time of difficulty could always be recovered in the hill districts from those villages to which they were made, and the annual public works grants for repairs and new works would be sufficient to provide for the few who had to be employed on works. The hill people are energetic, with a great deal of self-reliance, and I may say there are no poverty-stricken people, such as one sees in the plains. In the Taráí the people as a rule are the poorest of the poor, with no property, who easily lose heart and only think of going elsewhere when scarcity arises. Had it not been for the energetic arrangements of Mr. Macdonald, half of the Taráí asámis would have gone elsewhere. They could not be trusted with advances, and they can only be treated as a good zemindar treats his asámis. There are many who would be thrown on relief works in times of great scarcity, but with the aid of money they might be employed on local works which would improve the country. Any money so spent could not be recovered from the people. The Káshipur Municipality is too poor and the town too small to do more than assist its own helpless poor.

CHAPTERS II. AND III.

There were no relief or poorhouses in the hills.

CHAPTER IV.

Section 1.—There was no famine in Kumaun in 1868, and no scheme of works was prepared.

Section 2.—Such a scheme appears unnecessary, as one could not foresee where relief might be required.

Section 3.—Roads or canals are the only works suited to Kumaun.

Section 4.—There never could be any hurry for relief works in Kumaun, as the authorities would know of the necessity long before they were actually required.

Section 5.—It appears to me quite unnecessary to make preparations long before such works were required in the hills.

Section 6.—I think advances preferable, and if that system were adopted very few would be in want of relief works.

Section 7.—Such extensive works could never be required in Kumaun.

Section 10.—No such necessity could exist in Kumaun.

Section 11.—None.

Section 12.—There are no large irrigation works in the Kumaun Division, but many small masonry channels and water-courses, which irrigate a good deal of land. In the Kumaun Bhábar there are upwards of a hundred miles of these masonry channels. Land in that tract is worth nothing without irrigation; in fact, if it were offered free of rent no one would cultivate it. The irrigated area of the Bhábar is about 50,000 acres. Rice and other kharif crops are grown in about 25,000 acres in the rains, and the whole is cultivated in the rabi.

With reference to your No. 53F., dated the 2nd instant, I consider that forest denudation in this province has not been carried to extremes. All the higher hills are covered with forest, and, as far as I know, the cultivated parts which have been cleared do not suffer from want of rain in consequence. In former times our forests were too extensive and, in the northern parganas it would be a great benefit if half of the existing forests were cleared off, as they are useless and harbour wild beasts which do much injury.

ANSWER TO FURTHER QUESTION PUT BY THE
FAMINE COMMISSION.

*Kumaun—Major-General the Hon'ble Sir H.
Kamsay, Commissioner.*

CHAPTER I.—*Supplementary.*

Para. 26.—No grain was ever imported into Kumaun by Government authorities. High prices attract a good deal in times of great scarcity, but the supply of grain in the Bhabar is, I consider, sufficient to meet any deficit likely to occur in the hills.

*Answers to Questions put by the Famine
Commission.*

KUMAUN.

*Major-General the Hon'ble Sir H. Ramsay,
Commissioner.*

CHAPTER I.—*Supplementary.*

REPLIES TO FAMINE COMMISSION ENQUIRIES.

LUCKNOW—Colonel J. REID, Commissioner.

CHAPTER I.

THE districts I propose to write of, except of course in considering general questions, are those comprised in the Lucknow Division, of which I have had charge for between six and seven years. My opportunities for observing famines and experience in carrying out measures of famine relief have been of a most limited character, as this province, in which I have been continuously employed, had practically enjoyed immunity from famine for some eighty years prior to 1877, when the distress resulting from the drought and consequent failure of the kharif was very severe and caused lamentable loss of life. The first question (or rather *set of questions*) which I am called upon to answer is No. 26, Chapter I. This question begins by noting that "it has been laid down by the Government of India as a settled principle that local financial responsibility should be enforced in the case of a famine *as far as possible*." I imagine the words I have underlined must be read with considerable reservation, for in this Division at least it would always be *possible* to recover the amount expended in famine relief by selling up rights in land, or by imposing such additional burdens on land as would lead to wholesale transfers of such rights. But it cannot be intended to have recourse to extreme measures, such as would seriously or permanently impair the material prosperity of the afflicted region. The longer I look at this set of questions, the more deeply I am impressed with the conviction that it is utterly impossible for an officer more than fully occupied with his current duties to give answers to them of any real value. It appears to me that a very careful study of the history of previous famines, and their effects not only on the provinces visited, but in the adjoining provinces, is indispensably necessary to a proper understanding of the subject, and for this an officer engaged from morning till night with current work has no leisure. I believe that in all famines it will be found that adjoining, and occasionally even distant provinces benefit by famines in others—*i. e.*, persons connected with agricultural interests do by exportation and the rise in the price of food grains (non-agriculturists, on the other hand, would of course suffer from high prices). It is within my own experience that Oudh agriculturists have derived large profits from a famine in the adjoining North-Western Provinces. Something of this kind must generally occur. Loss in one quarter of the empire is compensated to a considerable extent by gain elsewhere; other provinces benefit by the sufferings of the afflicted provinces. And in cases of the kind, if there must be additional taxation in an equitable point of view, are the sufferers or the gainers the proper persons to be taxed? Theoretically, it would seem at first sight undeniable that when State funds have been expended in the relief of famine in a particular province, such expenditure should be recovered from the province that has benefited by it. Equally correct, however, would it seem that every province and administration in the empire should contribute equally to Imperial exigencies, but it is notorious that this is very far from being the case—some provinces yielding large surpluses over their fair proportion, while others give contributions far below it.

The Province of Oudh has poured during the last twenty years many crores of rupees into the Imperial treasury. Would it be just or reasonable to impose additional taxation because after many years the province was afflicted by famine, and a small portion of the enormous surplus, which would ordinarily have reached the Imperial treasury, was diverted from it and appropriated to the relief of local distress?

Some provinces may have exceptional resources and great recuperative powers, but, generally speaking, I am strongly of opinion that an attempt to recover the amount expended in relieving it from a famine-stricken province by additional taxation would be a measure of at least doubtful equity, expediency, and practicability. To the best

of my judgment, it is absolutely necessary that measures of taxation should *precede*, not *follow* famines. What I would suggest—and it is with much diffidence that I make any suggestion—is that the special famine taxation should consist of a license tax combined with an income tax; that the rate of taxation in each province should be fixed with some regard both to the amount required for Imperial purposes and to the frequency and severity of their famines, and the cost of relieving them in such province as shown by past experience.

Of the amount realized from this taxation, one portion should go into the Imperial exchequer as a mutual assurance fund, to be given as a grant-in-aid where most urgently required; another portion should be expended on projects calculated to prevent or mitigate famines as far as possible; and a third should be set aside to form a provincial reserve fund, to meet the cost of relief measures in all famines not of such magnitude as to necessitate a requisition for Imperial assistance. It would perhaps be preferable to have a uniform percentage of taxation for Imperial purposes throughout the whole empire and to vary the percentages of provincial taxation according to local expenditure and requirements, the rate being periodically revised; tax-payers would thus have a direct interest in rendering famine relief measures as little costly as possible.

As to municipalities, the burden of an income and license tax would fall on them with more than average weight, and in case of need they would have a good claim to assistance from provincial funds. If anything further is required, the only suggestion I can make is that each municipality should be required to set aside yearly a small percentage of its gross income for investment to meet claims of this nature.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Rae Bareilly.—*Dr. J. H. Loch, Civil Surgeon.*

CHAPTER I.

PREFACE.

I have the honour to submit the accompanying replies to questions in the Famine Circular, and to state that I have been Civil Surgeon of this District, since the 8th December, 1877, at which time the poor-house was in full working under the Superintendence of the Magistrate and Collector, that I had not any part in its management more than visiting it frequently to see that the sick were properly attended to, that conservancy was carried out as efficiently as possible, and that the sources of water were kept clean and the food well cooked, also giving my advice on any point when asked for.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

PREFACE.

RAE BAREIL.

Dr. J. H. Loch, Civil Surgeon.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Rae Bareilly.—Surgeon E. Mulvany, Civil Surgeon.

1. *Name of writer.*—Surgeon E. Mulvany, Civil Surgeon.

2. *Name of district.*—Rae Bareilly.

3. *Connection with the district, &c.*—The writer has been Civil Surgeon of Rae Bareilly for the last two years. His experience of famine is principally in connection with poorhouses. He has had charge of the sudder poorhouse, Rae Bareilly, since it was started in October, 1877. His connection with relief works refers only to sanitary and medical supervision.

CHAPTER I.

24. It will be most convenient to consider deaths from famine as commencing with 1st January, 1878. There were some deaths from starvation in November and December, 1877, but these will make little difference in the calculation.

The population of the district for different ages is not known. No ratio can therefore be calculated.

Statement showing deaths according to age—average, and for 1878.

	Both sexes under 1.	Both sexes 1-15.	Both sexes 15-45.	Over 45.	Total.
Average half-yearly deaths from January, 1871, to December, 1877 ...	1,469	2,186	2,801	2,680	9,136
Total deaths first half of 1878 ...	6,076	9,395	4,170	9,788	29,429
Increase ...	4,579	7,209	1,369	7,103	20,260
* Deduct probable deaths in 1878 from small-pox ...	1,750	1,750	300	200	4,000
Net increase ...	2,829	5,459	1,069	6,903	16,260

* NOTE.—8,880 are actually shown by the mortuary returns to have died of small-pox in 1878 (1st half), but such a number of deaths in proportion to the population is unheard of in ordinary years, 4,000 is a liberal allowance for small-pox *per se*. Besides in the average half-yearly deaths (1871-77) epidemic diseases are included.

From the above statement it appears that the increase was greatest amongst the old ; 2nd, amongst juveniles ; 3rd, amongst infants, and least amongst adults.

If the latter be excluded, the total increase is 15,191. Supposing the relief measures adopted in Rae Bareilly to have been adequate from the first, this number gives the answer to the first portion of question 24, *viz.*, the deaths which must inevitably occur. In other words about 15 per 1,000 of the population must inevitably die in six months. If this calculation were made for the most distressed circles of the district only, such as Bachhrawan and Máharájanj, the proportion would, of course, come out much higher.

The mortuary returns show deaths only among Christians, Muhammadans, Hindus, and other classes, a division which will scarcely be of much value:—

Average half-yearly deaths from 1871-77 ...	Deaths, first half of 1878 ...	Remarks.	
		* The ratios are for half-year only.	† People picked up dead, caste unknown.
Christians.	1.5	?	?
Ratio per 1,000.			
Muhammadans.	606	*8.6	*27.45
Ratio per 1,000.			
Hindus.	8,558	*9.1	*29.24
Ratio per 1,000.			
Other classes.		.05	.30
Ratio per 1,000.			
		?	?

Christians and "other classes" are in such small numbers that they cannot be taken into consideration at all. The figures represent about an equal increase in the proportion of deaths amongst Muhammadans and Hindus, showing that both

these classes have suffered equally. There are no statistics showing the deaths among the different castes of Hindus. It is, however, obvious that the first to suffer in a famine are those who live by labouring for hire in the fields. The want of rain hinders cultivation and deprives them of their employment. They have no money and little credit, and it matters not what the price of grain is they cannot buy it. This class of people were suffering severely in Rae Bareilly as early as August, 1877, as was shown by their leaving their villages and going elsewhere to look for work. They must continue to suffer until rain falls and cultivation recommences.

Zemindars and other classes, with grain or money, do not suffer until their stores are exhausted and even then they can generally borrow from the baniya.

The mortuary returns show deaths according to sex as follows:—

	Males.	Ratio per 1,000.	Females.	Ratio per 1,000.	Remarks.
Average half-yearly deaths from 1871-77.	5,007	9.94	4,159	8.21	The ratios are half yearly.
First half of 1878	17,641	35.04	11,785	23.28	
Increase ...	12,634	25.10	7,626	15.07	

This statement shows a much higher death rate among males than females, and much greater increase per 1,000. I can offer no explanation of the cause of this.

For deaths among adults and children see statement at page 1 for this.

With regard to influence of locality soil, water, &c., districts where crops of rice, &c., which require a great deal of water, are grown must necessarily suffer most. This is very strikingly seen in the returns of the different circles in Rae Bareilly. The rice-growing circles north of the Sai nadi, especially Bachhraon and Maharajganj, suffered most, while the distress south of the Sai was comparatively trifling.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

RAE BAREIL.

Surgeon E. Mulvany, Civil Surgeon.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

Sultanpur.—Dr. A. Cameron, Civil Surgeon.

1. The district of Sultanpur, Oudh, is referred to in the following replies. I have been Civil Surgeon for the last six years, and in the course of that time I have had opportunities of becoming acquainted with all parts of the district and of gaining some knowledge of the condition of the people. Previous to the present scarcity, however, which began towards the latter end of last year, and has not at any time been of a very severe nature, I had no experience of famine, and as no large relief works have been opened during the present scarcity, I have had very little experience of famine relief measures. Having been called upon, however, for replies to certain paras. in the circular, I submit them for what they may be worth.

CHAPTER I.

2. *Sections 24 and 25.*—The mortality returns have hitherto been so inaccurate that it is even still a question what the normal death-rate is. Probably, as a rule, not more than half the actual number of deaths has been reported from year to year, and as no reliance is to be placed on the correctness of the causes of death assigned, no estimate can be formed of the number of deaths due, directly or indirectly, to famine. There are no statistics, that I am aware of, regarding past famines, and no special census has been taken in connection with the present scarcity. A comparison of the mortuary returns for the latter end of last and for the present year with those of the previous three years, shows a very decided increase of mortality since last November, especially to be remarked in the months of January, February, March, and April, when the scarcity of food was at its greatest. The following statement shows the monthly totals of deaths reported during the four years :—

	1875.	1876.	1877.	1878.
January	... 561	972	911	2,250
February	... 557	769	680	3,614
March	... 975	761	872	2,706
April	... 2,190	1,038	1,634	2,746
May	... 2,196	1,122	1,389	2,003
June	... 895	1,676	1,017	1,846
July	... 753	1,436	1,049	
August	... 720	580	1,091	

	1875.	1876.	1877.	1878.
September	976	876	1,015	
October	1,047	837	941	
November	977	819	1,436	
December	1,349	1,244	1,538	

From November, 1877, when the scarcity of food began really to be felt, to June, 1878, the total number of deaths reported was 18,199, compared with 8,664 during the same period of 1875, and 8,563 in 1876-77.

This increase over the average of not far from 10,000 deaths, was no doubt in part due, directly or indirectly, to famine; but there are considerations which make it very difficult to say how large that part was. In the first place the numbers reported in previous years were far below the truth; and since the present scarcity began chaukidars have been stimulated to greater accuracy and promptitude in reporting. Then there has been an unusually severe epidemic of small-pox prevalent, since March, to which at least a fifth of the increased mortality must be ascribed.

No information is contained in the returns as to the classes of the population that have suffered most severely.

They show a very decided preponderance of mortality amongst males as compared with females, the proportion being as high as 2 to 1 during the month of highest mortality (February), decreasing gradually, however, in later months to something like 5 to 4. This evidence of greater power of resistance to famine possessed by females, as shown in these returns, is very remarkable.

There is no information regarding the ages at which the greatest mortality occurred, but from my own observation I should say that the very young and the very old were the chief sufferers. Amongst local conditions that tend to intensify the effects of scarcity, the density of the population (about 500 to the square mile), its almost exclusively agricultural character and great poverty, appear the most important. There are no manufactures of any consequence carried on in the district; the holdings are excessively subdivided and the class of well-to-do proprietors, to whom the poor can look for material assistance in time of distress, is very small. There are no canals, and though wells are numerous they are very far for sufficient to supplement a deficient rainfall. Lastly may be mentioned the absence of all other means of communication besides one navigable stream, and roads, most of them unmetalled.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

SULTANPUR.

Dr. A. Cameron, Civil Surgeon.

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Partabgarh—*M. Muhammad Husain, Deputy
Inspector of Schools.*

CHAPTER I.

WITH reference to your Favour No. 10, dated 18th ultimo, I read the set of the questions in the *Gazette*, and have the honor to state that as almost all of those were based on the experiments of administration of the last famines in India, of which I have no experience at all, therefore I found myself quite unable to answer many of them and in serial order. However, I hope that any information given by me regarding the subject will be of some consequence. I, therefore, to the best of my knowledge, beg to state briefly as follows:—
(1) The state of the soil, the several crops, the agricultural prospects, the means of irrigation, &c., in the districts of Oudh.
(2) The circumstances of the rural population, their works and wants, their means of livelihood, and of their works, &c., &c.
(3) How the people are affected by the famine, why they are obliged to give up their works, how they should be protected against the calamity of starvation, what works according to my humble opinion would be best to relieve them, what plans should prove most successful to save the country from the terrors in future: (4) The defects and evils of the present system of relief works.

Although this Memo. of mine would not show detached answers of the Commission's questions respectively, yet I hope that it is nearly based on the same principles, and would give a light to many points of the inquiries made by the Commission.

MEMORANDUM.

Before touching the subject, agreeably to the instructions of the Commission, I should not omit mentioning that I am a native of Lucknow, and in 1864 got an appointment in the Educational Department which brought me out from the city to mofussil. Since that time I have seen many of the districts in Oudh, such as Lucknow, Fyzabad, Gonda, Rae Bareilly, and Partabgarh; and on my being appointed a deputy inspector of schools in 1866, I found the best opportunity to acquire a knowledge of the peasantry life. The

nature of my work, as I have to travel in every season of the year, and my long association with the village people of every caste, grade, and circumstances, has made me thoroughly acquainted with their business transactions and their works and labor. It is not only that by my spending 12 years in travelling I have but superficially seen lands ploughed and fields irrigated and reaped, but, as far as possible, I have taken pains to obtain a correct knowledge of the inner life of the poor cultivators. Owing to my being mixed with them (as my profession obliges me) friendly, and spending days and nights with them in their huts in every season, it is obvious that I might have got a correct idea of the outlines of the country business. The copies of the testimonials appended to my first application will prove my claim. Although I have found out that the nature of the soil, the outturn of the land, the circumstances of the people, their manners and habits, and their business and mode of life in all the districts in Oudh that I have seen, as well as of their neighbouring districts in Oudh and North-Western Provinces, such as Nawárganj, Unao, Sitapur, Bahraich, and Sultanpur (in Oudh), Jaunpur, Allahabad, Fatehpur and Cawnpore (North-Western Provinces) are nearly or very closely equal to each other: so I believe that in all other districts in Oudh and North-Western Provinces (except perhaps the Jhánsi Division) there would be little difference; yet as a specimen I shall take the district Partabgarh (in which I have worked since 1870) to illustrate my meaning.

CHAPTER I.

THE STATE OF SOIL, THE SEVERAL CROPS, THE AGRICULTURAL PROSPECTS, AND THE MEANS OF IRRIGATION, &c.

The soil of various qualities, such as matyar, domat, balhowi or bhour, dhan-khar, bijar, usar, and banjar, are found in every tahsíl in this district. Pure matyar is scarce, but domat (loam) and balhowi (sandy) are numerous. Limited tracts of usar lie here and there uncultivated. The matyar, domat, and balhowi produce all sorts of dry crops, and dhan-khar mostly wet, but rarely both wet and dry, and bijar only wet crop, the dhán.

From Asarh (15th June) the rainy season commences; and it is considered very useful and a favourable season if the clouds appear and rains begin just after the expiration of *Mirghisra nakhat*.

Nakhats.—According to the Hindu chronology the year is divided into 27 nachatras or nakhats. Of these, the rainy season nakhats are most commonly known throughout India, and all agricultural transactions are carried on accordingly. There is no exactly fixed time for these nakhats corresponding to that of the English, because sometimes their length increases or decreases according to the difference between the dates of the months and the length of *Shankrant*, but their names and probable time from *Asarh* to *Chait*, viz., during the kharif and rabi seasons, are as follows :—

Asarh from 15th June to 14th July =
(1) half of Mirghisra, (2) Adra complete,
(3) three-quarters of Punarbas.

Sáwan from 15th July to 14th August
= one-quarter of Punarbas, (2) Púkh or
Chiraiya, (3) Shalekha complete.

Bhádón from 15th August to 14th
September = (1) Magha, (2) Purba com-
plete, and (3) one-quarter of Uttra.

Kuár from 15th September to 14th
October = (1) three-quarters of Uttra, (2)
Hast or Hathya complete, and (3) half of
Chitra.

Kátik from 15th October to 14th No-
vember = (1) half of Chitra, (2) Sowati
complete, (3) three-quarters of Bisakha.

Aghan from 15th November to 14th
December = (1) one-quarter of Bisakha, (2)
Anarodha, and (3) Jestha complete.

Púkh or Pús from 15th December to
14th January = (1) Múl, (2) Purbakhar, (3)
one-quarter of Uttrakhar.

Mágh from 15th January to 14th Feb-
ruary = (1) three-quarters of Uttrakhar,
(2) Sarwan complete, (3) half of Dhanestha.

Phágun from 15th February to 14th
March = (1) half of Dhanestha, (2) Sut-
lehekh complete, (3) three-quarters of Pur-
bhadrapad.

Chaitra or Chait from 15th March to
14th April = (1) one-quarter of Purbha-
drapad, (2) Utrabhadrapad, and (3) Rewti
complete.

• *Rains in different nakhats during the agricultural seasons and different crops sown in them.*—The rain generally begins and is wanted from Adra nakhat and is always local. A good heavy shower opens all sorts of agricultural affairs : the ploughing commences, and all sorts of kharif grains, as sáwan, bhadela, kakun, makra,

káli urdi or^s bhadela urd (makai lahrara), or bari juar, and sanai and dhan kuwara ; and in some places choti juar, arhar, kodon, tili, and patwa are sown and seeds of jarhan dhán are sown in seed-plots. (The favourable opportunity for sowing dhán is that the fields be full of water and ploughing them in the same state the seeds may be thrown in the slime. This is called lao. Another manner of sowing, called dhorya, is that when there is not sufficient water, the fields are well turned up and the seeds scattered in the dust.) In jhils (lakes) and talabs (tanks) singhára is planted.

The best time for sowing dhan is Adra nakhat. As the proverb goes :

"Chitra gehun, Adra dhán ;
Na unka girwi, na unka ghám ;"

viz., "wheat sown in Chitra and dhán in Adra ; the former cannot be spoilt by girwi, and the latter cannot be destroyed by the sun."

If there be no rain in Adra, the kashtkars, though not very much disappointed, yet are very sorry to lose the golden opportunity. If there be only a little rain, but water in the tanks be available, they first irrigate (1) the sugarcane fields, and then, if possible, keep (2) the jarhan dhán and (3) koari dhán plants alive ; then irrigate (4) makra, (5) kakun, (6) sawan, and (7) bari juar. The last-named corn (from Nos. 4 to 6), being early crops, are of great help to the kashtkars, and are only sown for the purpose that they should find bread soon. In about three or at most four nakhats they are reaped. Too much rain in Adra is also injurious, because the fields cannot be worked and sown, and the dhán plants, being drowned, get rotten.

Punarbas.—In this nakhat mostly juar, arhar, tili, patwa, and also dhán are sown. It is the latest time for dhán. The weeding of the fields is commenced. Heavy rain, after germinating the juar seed, is very useful for all crops, specially for dhán ; and slight or no rain increases the labour of irrigation, but would not destroy anything.

Púkh or Chiraiya.—This is the best time for sowing moth or mothí and transplanting jarhan dhán [the proverb is : "*Chiraiya men láí uchar puchar ; Shalekha men láí bahut níhar ; Mágha men jin layo bháiya ; ek-ek dhan men doe doe pia ;*" i.e., "in Chiraiya transplant dhán by any way ; in Shalekha with care : but, my son, do not transplant dhán in Mágha, because in each seed you will

find two pias (empty cells)], and is the best time for tilling the fields for rabi crops, wheat and jao; is the earliest time for sowing urdi, mash and bájra, arhar, mung, and kála til, and preparing seed-plots for tobacco. Heavy rain is bad for young jarhano plants just transplanted.

Urdu, sáwan, and kakun suffer; mothi and bájra cannot be sown. But if no rain set in, it makes the cultivators perform the laborious work of irrigation, if there be water in the tanks. Very much work of weeding the fields opens for labourers.

Shalekha.—Proper and best time for sowing bájra and urdu or mash, and latest time for mothi, arhar, and transplanting jarhan. The *chaumas**

* The fields left unsown for rabi are called chaumas.

fields are prepared and the weeding of the kharif crops continues; and had there been sufficient rain in previous nakhats, or may there be sufficient water in tanks for irrigation, the scarcity of rain in this nakhat is not very injurious, rather is good to dhán, mothi, and bájri. As the proverb goes: "*Sáwan sukha, dhan Bhádon sukha gehun*;" viz. "by passing sáwan dry, the dhan crops yield very well; and if there be no rain in Bhádon, it is very good for wheat."

Magha is one of the important nakhats of the rains; very much water is required in this time. If there be no rains in this nakhat, and the previous nakhats might have passed away with little or no rain, the kharif crops awfully suffer, and the cultivators lose all their hopes of agricultural prosperity. This is the nakhat in which rain is prosperous to every crop, as the proverb is: "*Magha ke hursai, mata ke purse*;" viz., "a child is well satisfied if for him dinner is served by his mother, and the earth remains no more thirsty (or is well satisfied) if there be rain in Magha." The chaumas fields are readily prepared in this nakhat, which are expected to yield very good rabi crops. It is too late for transplanting dhán (*vide* the foregoing proverb under Púkh), and rarely in very rich fields mash is sown. Tobacco seeds are sown in seed-plots. Bari juár is reaped.

* *Purba*.—Heavy rain is required in this nakhat, which is most necessary. By there being no rain dhán mostly and all other crops also suffer, except chaumas fields that can be well prepared (*vide* the proverb under Púkh). Mostly kakun and bari juár, and rarely sáwan and kali

urdi, begin to be reaped and give food to the poor cultivators, who up to this time depended merely on mahajan's favour. Very rarely in the fields from which sáwan had been reaped, if they be very rich, mash is sown.

Uttra.—Rain often accompanied by strong wind generally falls down in this nakhat, which is rather injurious to early-sown juár and bájra and is good to dhán and other crops lately sown. Nothing is sown in this nakhat. Sáwan, bhadela urd, makra, and very early-sown dhán, are reaped, and the cultivators become happy.

Hast or Hathya.—In this nakhat the rain is generally accompanied by strong storm of wind, which proportionately to its force is injurious to juar and bájra, the plants of which are thrown down and spoilt and their blossoms are washed away. The water is also killing to til, kodon, and kapás. As the saying is : "*Hathya bursa tin hot, láí sakkar, mash* ; "*Hathya bursa tin jat, til, kodon, kapas*" ; that is, "by the rains in Hathya three things yield well—(1st) dhán (jarhan), (2nd) sugar, (3rd) mash, and three things are destroyed : til (oilseed), kodon, and kapás (cotton)." All the koari dháns and remaining makra and tili are reaped, and if it goes dry there is no harm.

The chaumas fields are prepared well, and in some places peas, gram, and alsí (oilseed) begin to be sown. This is early, but good time for sowing the above named. The notice of the zemindars' demand for the first kist is announced, and on the *Dasahra* the ryots make *shagun*, viz., give something from their dues.

Chittra.—The rain in this nakhat is considered a plague to wheat crops. It is said that a few drops in this nakhat destroy even the grass on the ground and spoil the uncultivated field of the wheat, and the blossoms of mash, mothi, and of bájra lately sown. It is early and best time for sowing wheat (*vide* the proverb under Adra) and limited and proper time for peas, gram, alsí. In short, except jao, all other rabi crops begin to be sown from this nakhat.

Kodon and dhan, early transplanted, are reaped, and the zemindari dues are demanded.

Sowati.—Rain in this nakhat is believed to be a blessing of Providence.

They say that this is the rain that produces pearls in seas, camphor in kela, and banslochun in bamboos; and for wheat it does considerable good. As the proverb says: "*Ek lahra jo barsai Sowati; Kunbin pahnai sone kepati*;" viz., "if a slight shower of rain may fall in Sowati, the wife of Kurmi (best wheat-cultivating caste) would wear golden earrings." But a heavy and continuous shower destroyed wheat seeds and lately-sown bájra and juár. It is proper and very busy time for sowing wheat, jao, and all other rabi crops, and the reaping of juár, bájra, kodon, and tili commences.

Bisakha.—In this, slight rain is welcome, but failure of the same does no harm, though such failure increases the labour of irrigation. By this time, as the seeds have just germinated, irrigation from tanks is injurious, specially to wheat, but from wells very beneficial. On the whole, for rabi crops irrigation from tanks, in comparison to that from wells, is of no value, and is rather considered injurious. In very rich fields, from which bájra was reaped, sometimes peas are sown; but it is too late time for sowing wheat and jao, as it is proverbial: "*Sáwán sáwán, Bisa jao; jitna bona, utna lao*;" that is, "by sowing sáwán in Sáwán and jao in Bisakha, you will reap only as much as there was thrown the seed." However, on the slopes of the banks of river, all the rabi crops are generally sown by this time and produce well.

The reaping of jarhan dhán, mothi, mung, urd, juár, kála til, and patwa, &c., is commenced; tobacco is transplanted.

Anoradha and Jestha.—In these nakats (month of Aghan) all the abovenamed crops are reaped entirely and sugarcane-milling commences. The zemindars try to collect all their demands and mahájans realize their dues. Slight rain does much good to rabi, but heavy damages the kharif harvest. There is generally no rain in these nakhats, the want of which is not felt at all.

Múl and Purbakhar.—In these nakhats (month of Pús) sometimes frost injures several crops. Heavy rain and cloudy atmosphere affects them; slight rain is very good, but if there be no rain the fields can be well protected by irrigation. Sugarcane is abundantly milled, which give some work for labourers and provides

food to the cultivators and cattle ; otherwise the time is hard for poor peasants, specially the labourers. The cultivators are compelled by the zemindars and mahájans for their respective demands.

Uttrakhar, Súwan, and Dhanestha.—In these nakhats (month of Mágh), if in Sáwan east wind may remain blowing, frost would surely spoil the crops, specially arhar and mattar, but if there might be rain it does not affect. Eastern wind, cloudy atmosphere, and frequent rain create girwi, a very bad disease for wheat and jao. The fields sown lately in Bisakha specially suffer by the disease awfully. Sugarcane is abundantly milled. The poor asámis have almost nothing to eat, except raw ears of wheat, jao, and peas. Very early sown peas are reaped, and there is no fodder for cattle, except the leaves of sugarcane.

Sutlehekh and Purbhadrapad.—In these nakhats (month of Phágun) peas are reaped abundantly and early-sown wheat also ; sugarcane is nearly milled. Lumberdars demand their third kist. By rain wheat plants fall down and the produce is very much reduced. The condition of the asámis grows a little better.

Uttrabhadrapad and Rewti.—In these nakhats (month of Chait) nearly the whole of the rabi crops are reaped. Rain does much harm to threshing, &c. The asámis get a full meal. Mahájans and lumberdars compel them for their demands and work in the fields is at an end. The only business they now have to do is threshing the corn and in many places making preparations for sowing sugarcane and sáwán. Every individual in country as well as cattle get enough of food and seem quite happy for about two months, Chait and Bisakh. During the full months of Jeth and Asarh, till the rains begin, the people have no work in the fields, but the labourers and poor cultivators (asámis) find their bread by being employed in repairing the houses in their own villages or in the neighbouring towns, where they go in crowds every morning or live there.

Mahua and ám fruits are another means of their support ; but as soon as the rains begin in Asarh, all the people return to their respective agricultural business for the new year.

What quantity of rain at least can produce crop, and by failure of the same how far irrigation can protect them.—The want

and benefit of the rain in several nakhsats for various kinds of kharif and rabi crops have already been mentioned above ; in other words, between 30 and 35 inches of rain during the whole year, in proper time, is quite sufficient to produce all sorts of crops. For the past five years the quantity of rain in this district has been following:—

1873	... 32·2 inches.
1874	... 33·2 "
1875	... 41·1 "
1876	... 36·03 "
1877	... 23·03 "

In the year 1875, the rain being 41 inches was considered much injurious to many of the crops, such as juár and bájra, and in many low places thousands of bighas of dhán, being drowned, were destroyed entirely. According to my estimation and enquiries about 16 inches of rain in the whole year, viz., 4 inches in Adra (June), 2 inches in Pukh (July), 1 inch in Ashlekha (August), 3 inches in Mággha (August), 2 inches in Purba (September), 2 inches in Uttra (September), 1 inch in Sowati (about the end of November), and 1 inch in Purbakhar (January), can produce about three-fourths of dhan and makra and the whole of all other crops of kharif and rabi both. Moreover, if there may be a good rain in Adra, about 2 inches at least, and about the same in Mággha, and a slight rain in Pukh, Shalekha, and Hasthya, about 8 or 10 inches altogether, the fields can be sown and grown, and if the people have means for irrigation, except the dhán crop, which would of course be nearly destroyed; but about one-half of all the other kharif and full or three-fourths of rabi crops can be saved in first year, and about three-fourths or half of the quantity in the next, and half of it in the third.

Last year (1877) the rainfall in this district from June to December was as follows. June 3·1, July 2·8, August 4·9, September 1·4, October 2·6, November *nil*, December ·8 ; total 15·6. But though there was a dearth of provision, yet no one can say that the juár and bájra crops had been less than the ordinary rates and quantities yielded in a most favourable season. The production was rather double of that of the year 1875, in which the rainfall was 41 inches, which had spoilt many of the crops ; and the rabi crops in last year were as favourable as could be. It was not the scarcity and want of rain, but the frost, that reduced the outturn of

the fields ; other wise the fields looked more prosperous than the year before the last, and the corn, *viz.*, rai and sarsan, &c., and in some places jao, too, that had not been affected by the frost, yielded wonderfully. Besides the frost, mattar suffered a great deal by the wind-storm that blew when the fields were blossoming, and chana by gade-la, the injurious worm.

Without sufficient rain the land must become unable to save vegetable life, but this evil can be remedied to some extent by means of irrigation.—There is no doubt that without a full and good rainy season the land does not become pregnant with the matters that give life to vegetables and nourish them ; rather, owing to the same reason, all the abovementioned evils that spoilt the last rabi harvest shot out their roots ; there is, however, no reason that by means of good irrigation we could reap no fruit of our labour. Everybody has seen that in the dry and hottest month of Jeth sáwán, kakri, and many other vegetables, and bari juar, too, are produced abundantly, and sugarcane fields are well protected.

Last year I saw in Raipur Bhagdra people irrigating Jethawu dhán fields in the said month by means of *dhekoli*, and I was told that they were expected to bring forth a good crop. Often in rabi crops time, from the beginning to end, rain does never fall, nor there remains moisture in the fields than the seed could germinate, yet by filling them with water they are sown and protected all the time by means of irrigation. Certainly producing the grain with such a labour and against the unfavourable season would be very expensive and the outturn not as usual, but there is no doubt that anyhow the land of our country is capable of affording something for our food if we have enough means for irrigation.

The way and cost of irrigation.—I should not omit mentioning that those grains that can be protected by irrigation, how many watering require ; for example, first, I beg to take as standard the irrigation of wheat, and beg to quote the remark in detail on the subject from a memorandum of mine on "wheat cultivation :—" "The watering depends on the means of the cultivators and the kind of soil. In *matyár* land, by the rich cultivators as well as by Kurmis and Murayis, the fields are irrigated three times, but in *balua* from one to two times. In low and moist land and

generally in kachars or banks of rivers, no watering is required ; and when the soil is too moist the crop suffers. The ways of irrigation are also different and particularly depend upon the reach of water ; but commonly there are three ways of this work ; dugla, pur, and dhekli ; dugla beri or douri is the same thing. It is a light basket with four cords attached to the corners, which are held by two men, and is always applied for raising water from tanks, jhils, and sometimes from rivers and nálas. The dugla basket is plastered either by *bel* fruit pulp or resin dissolved in oil in order to make it watertight. If the water be near and the ground from the field to the water level, they carry on their work with one dugla only, but otherwise sometimes with four or five. For each dugla four men are employed who work by turn, and their wages are greater than those of the *harwahi*,*

*Ploughmen.

but they have to work from about 2, 3, or 4 A. M. to 6 P. M., viz., for from 14 to 16 hours. To

†14 gandas=2 lbs.

‡Mahájan who lends grain to asámis.

each of these men from 30 to 34 gandas † of grain are given by the zemindars and beohars,‡ but the common people have to give something more as tobacco and chabena. This is the average rate of the work, but the terms vary in every pargana, though not very much. From one dugla, if the water is not very close and no strict supervision, 2 bighas ($1\frac{1}{4}$ acre) of land are irrigated in one day ; but if the water is close by the field and the surface of the field is level, from 2 to 3 and sometimes 4 bighas are irrigated in one day with one dugla. The aggregate cost of irrigation of 2 bighas with one dugla, if the grain be sold at 20 seers per rupee, is about Rs. 7, or $3\frac{1}{2}$ annas per bigha. The grain of cheapest kind of the time or mahua is given in wages ; and whether the corn may be sold cheap or dear, but in the rate of wages as a rule there can be no difference.

“ Watering from tanks, &c., with the dugla is not considered as good for the crops as irrigation wells (just after germinating seed of wheat, watering from dugla is injurious).

“ Watering from wells is of three kinds, and also the wells are of three kinds in this district. Nearly in whole Patti tahsíl the water, being very near, is generally drawn by men instead of bullocks. This is called *ghorra*. In one *ghorra* from five to nine men are employed, besides the man who holds the water-bag ; but generally seven men

do this work here from sunrise to dark and in some places they have no interval in midday even. The wages of these labourers varies from 24 to 30 gandas of grain. From one ghorra 7 or 8 and sometimes

* 32 biswas=1 acre 10* biswas of land are well watered ; but from púr, which is drawn by bullocks, if the water is at the depth of 60 feet, from 2½ to 3 biswas can be irrigated in one day. [The average cost of irrigation from ghorra per bigha is about Re. 1-8-0, and from Púr, if the bullocks and coolies are all hired, (the rate of which is about 6 annas per diem) is about Rs. 2-8-0 ; but the cost increases or decreases according to the depth of distance of the well, labour of the coolies, and surface of the field. If the surface is uneven, more labour would be required to finish the work.]” * * * * “ Near large hills and the banks of the Ganges dhekli is used for irrigation. A very small kucha well is dug up for the purpose, and at a little distance from the well a pillar is made and a long pole of wood is placed upon it. The larger part of the wood remains towards the well and the shorter end the other side, on which, to keep up balance, a load of mud is fastened, and to the other end of the pole towards the well a small rope is attached, and in the rope an earthen pot called kund is tied, and a man standing on the well pulls down the rope and draws it up ; the pole which bears the weight on the other end helps to lighten the weight of the kund. These dhekliis are applied only by the Kewats, Káchis, and Murayis, &c., in their own fields, who by this means and with hard labour, cannot irrigate more than one or two biswas because they cannot get sufficient water out of the well.

“ Besides pukka indáras (large wells), small kucha temporary wells are also made near the fields in some of those places where water is out of reach and the soil is not quite sandy ; but such wells are of use only for the time the watering for the fields is required, and being useless, are filled up afterwards. So the cultivators have to make such wells every year.”

Time for watering.— The time for watering is once in from 12 to 20 days, or at least a month after the seed germinates, and 2ndly, when the field is about to blossom that is a month after ; and 3rdly, when the field is in ear, viz., 20 days after the second irrigation.” This (viz., three times) is maximum rate of watering the wheat fields. Only very laborious and

well-to do Kashtkars Kūrnīs, and Murayis can afford for three waterings; others have them with one or at most two only. In ordinary seasons jāo and mattar require only one watering and yield very good crops; but if there is not sufficient rain in the rainy season, specially if the Purba, Uttra, Hast, and Sowat, nakhats go dry, before sowing seed, the fields are once filled with water in order that they may be ploughed and the seeds may germinate. From kharif crops, except dhān, everything can be saved more or less by three or four waterings, and with three waterings and a little rain juār and bājra cannot suffer at all. In short, in my estimation, if a drop of rain may not fall during the whole year, but if the people should steadily remain working in their fields, provided they have means for irrigation, then, except dhān, the one-fourth from kharif crops and three-fourths from rabi can be produced, which would be sufficient to save the lives of all the people in this district as well as the cattle.

The least production of the country is sufficient for the provision of the country.—According to the Oudh census report, in the year 1 69 there were 855,030 bighas of cultivated land, and total population 936,553 in this district. Thinking of the progress in population and agricultural prospects which the district must have made since the year 1869, I hope it would not be too much if the cultivated bighas of land be estimated at about 940,533, viz., 10 per cent. more than the total given in the census records, and the population 1,000,000 against 936,553. Now, after deducting 350,000, the total number of infants, from the total population, at the rate given in the report in question, there remain 650,000 souls for whom we require food, and at the rate of $\frac{3}{4}$ seer, which is the full meal for a male adult, 4,394,166 maunds of grain would be necessary. The rate of the production mentioned in the Gazetteer is that a bigha of land produces about 20 maunds of dhān and 10 maunds of wheat; but it is by no means unfair if in whole year, provided that the people should go on with their agricultural business with the hardest labour and protect it by irrigation, I estimate the production at the maximum rate of 5 maunds per bigha, viz., nothing from kharif and only half from rabi: so our product would be 4,702,565 maunds. Now, giving 4,394,166 to save human life, there would still remain 308,399 maunds of grain for our seed for the next year and for horses and cattle, and the fodder would be got in bargain; and if by sowing sáwāa,

bari juár, chhoti juár, and bájra, which I have already stated that they can be produced by means of only irrigation, may get 5 mauuds more per bigha, how comfortable we can expect them to be then. But how the people should remain employed in the recommended works is the question which I shall decide: afterwards another question is, that when the work would become so elaborate, how can the whole of it be finished? It should be remembered that in such a time the number of labourers also increases: the men of every caste turn labourers. So, if we have means to continue the work, it will not be left undone owing to the scarcity of labourers.

Attention is drawn to the points of the foregoing chapter worth remembering.—

From the foregoing chapter it should be borne in mind (1) that the land of this country produces all sorts of corn; (2) from kharif crops juár (bari and chhoti), bájra, and sáwán, and from rabi crops everything can be produced by means of irrigation; (3) except sáwán, for all others of the above crops very heavy rain is injurious; (4) in scarcity of rain, by means of hard labour and irrigation, we could produce as much as would be sufficient for our food for the whole year.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

● PARTABGARH.

*M. Muhammad Husain, Deputy Inspector
of Schools.*

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Fyzabad—Dr. E. Bonavia, Offg. Civil Surgeon.

THE district I have written of is Fyzabad, Oudh. My connection with it is Officiating Civil Surgeon, dating from December, 1877. I have had opportunities of seeing famine cases, during the late scard city, both at the charitable dispensary and at the poorhouse. This poorhouse has been set up on account of the late distress, and is independent of the leper and blind poorhouse, which is an older institution. The largest number of inmates in the famine poorhouse on any one day was 946 on the 24th August. I have been in medical and sanitary charge of the famine poorhouse. The other arrangements, such as supplying provision, clothing, establishment, &c., were under Mr. Boys, the Assistant Commissioner.

CHAPTER I.

Condition of the country and people.

Section 24.—No estimate can made of the number and proportion of deaths which are the inevitable consequence of famine. The police death reports give only a few specific diseases, and the rest are put under one heading, *viz.*, "deaths from other causes."

Several cases of diarrhoea, dysentery, and sloughing ulcers were brought to the charitable dispensary, which I attribute to consequences of distress, such as insufficient, or bad food. Many of these died, in spite of treatment. It is presumable that other similar cases occurred in the district of Fyzabad, but were not especially noted as caused by distress. The death returns from January to July for 1877 and 1878 for the Fyzabad district are herewith sent. They may help in forming some idea of the increase in the death-rate which may fairly *perhaps* be attributable to scarcity of food, more or less directly. The only epidemic during the current year up to July, was small-pox. There are no statistics in this office of past famines to show depopulation caused by them.

Statement of Mortality of the Fyzabad District in 1877-78.

1.				2.	3.				4.																		
Month.				Population.	Christian.	Muhammadan.	Hindu.	Other classes.	CAUSE OF DEATH.																		
									Cholera.			Small-pox.			Fevers.			Bowel complaints.			INJURIES.						
									Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Suicide.			Wounds.			
									Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				
1877.				1,028,620																							
January	...	...	...		...	102	951	...	...	...	...	...	5	5	538	396	934	23	8	31	...	1	1	4	1	5	
February	96	775	...	...	6	5	11	2	8	10	399	296	695	35	23	58	5	8	13	1	...	1
March	139	1,359	...	...	242	201	443	13	8	21	522	356	878	34	15	49	2	2	4	...	...	...
April	275	2,101	...	...	447	446	893	30	28	58	714	529	1,243	55	23	78	1	3	4	2	1	3
May	263	1,986	...	...	333	265	598	24	27	51	715	565	1,280	69	54	123	4	6	10	3	2	5
June	130	1,146	...	...	73	55	128	3	1	4	499	384	883	41	33	74	...	1	1	...	...	...
July	...	...	...	...	215	1,264	...	...	158	118	276	16	19	35	515	394	909	37	27	64	1	9	10	1	2	3	
Total				...	1	1,215	9,582	...	1,259	1,090	2,349	88	96	184	3,902	2,920	6,822	294	183	477	13	30	43	11	6	17	
1878.				1,028,620																							
January	...	...	...		...	196	1,774	1	...	...	...	17	6	23	1,095	576	1,671	54	23	82	1	5	6	1	2	3	
February	223	2,055	1	...	5	2	7	21	27	48	894	483	1,377	80	58	138	...	2	2	3	...	3
March	...	...	...		...	271	2,133	...	...	...	...	129	106	235	948	571	1,519	133	69	202	1	3	4	1	2	3	
April	345	1,930	...	...	15	6	21	334	262	596	786	529	1,315	58	34	92	2	2	4	3	...	3
May	281	1,811	...	...	2	...	2	359	338	697	575	437	1,012	54	49	103	1	4	5	3	1	4
June	242	1,767	...	...	2	2	4	246	246	492	610	463	1,073	55	31	86	5	9	14	1	...	1
July	...	...	...	...	211	1,809	...	...	18	7	25	181	116	297	654	463	1,117	85	39	124	1	7	8	1	1	2	
Total				...	8	1,769	13,309	2	42	17	59	1,287	1,101	2,388	5,562	3,522	9,084	519	308	827	11	32	43	13	6	19	

Statement of Mortality of the Fyzabad District in 1877-78—(concluded).

				4.											5.											Ratio of deaths from all causes per 1,000 of the population.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				CAUSE OF DEATH.											AGE AT TIME OF DEATH.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
*Month.				INJURIES.						Total injuries.	All other causes.			Total deaths from all causes.			INFANTS UN-ABLE TO WALK.		BOYS AND GIRLS.		ADULTS.		OLD PEOPLE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				Accident.			Snake-bite or killed by wild beasts.										Under one year.		1 to 15 years.		15 to 45 years.		Above 45 years																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				Male.	Female.	Total.	Male.	Female.	Total.								Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.		Female.	Male.	Female.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1877.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</

Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A. of 5th July, 1878.

Sitapur—Dr. J. Ellis, Civil Surgeon.

PREFACE.

I PROPOSE to write of the district of Sitapur, Oudh. It is now nearly eleven years since I first came to the district. Of these I have been eight years Civil Surgeon of Sitapur. I have never seen a *famine* in the district. From August, 1877 to March, 1878 prices of provisions were high, and there was consequently a good deal of distress among the poorer classes. Certain people who when provisions are cheap are supported by alms from the community, wandering mendicants, fakirs, &c., suffered greatly, and I have no doubt that some of these died of hunger.

I have had scarcely any experience of famine or famine relief. From about the middle of January to middle of March some four hundred famine relief labourers were employed on improving tanks near Sitapur, and about the same number of people unable to work, the old and feeble, and children were supported by gratuitous relief. These are the only cases of famine relief that I have seen.

CHAPTER I.

Question 24.—I do not think that any estimate can be made of the deaths due to privations or eating unwholesome food. I know of four deaths from these causes (in these cases I made *post-mortem* examinations), and I have no doubt that other similar cases occurred in the district.

No special census taken.

No statistics exist of past famines.

Question 25.—The total deaths in the district for January, February, and March, 1878, were more than double the number of death for the same months in 1877. A great number of the deaths in 1878 were put down in the death returns as due to small-pox and fevers. I believe, however, that the latter heading, *viz.*, fevers, includes many deaths which were really due to other causes among which cold and hunger, or the diseases caused thereby, play an important part.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER I.

SITAPUR.

Dr. J. Ellis, Civil Surgeon.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A of 5th July 1878.

Extracts of a letter, No. 2351, dated the 27th July 1878, from COLONEL I. R. MACANDREW, Commissioner, Sitapur Division, to the Secretary to the Committee upon the Famine Commissions questions.

* * * * *

CHAPTER I.

* * * * *

3. As to suggestions, I think that cattle should be bred in the countries suited to them, and the alluvial plain of the Ganges is not the place. The reason they are so deficient here is, I believe, the badness of the pasture. India above the ghâts will always produce better cattle than the gangetic plain, and the only real question appears to be whether the cost of importing good cattle from where they can be successfully bred would be greater than that of cattle bred in the North-Western Provinces, the young being fed on artificial grasses raised on lands watered by the canals. The Director of Agriculture informed me that this experiment had not been tried. Cattle should be bred for a specific purpose,—milk, beef, or draught purposes. Probably the second object would have to be tried with Mahomedan gaddis only; but the Hindus would take to the other two purposes. I found some very fine draught bullocks among the Tharus in the Western Nipal terai, but they valued them at Rs. 100 a piece. The Dhaurera breed of cattle was esteemed good for draught, but the good pasture land on which they were reared is being cultivated, and the breed is dying out. The sub-soil ploughing advocated by Colonel Corbett, and I believe by Mr. Buck, should be tried, where the people generally can see it if it is really desirable, and, if it answers, deeper ploughs and stronger cattle would be required. The poverty, want of thrift, and apathy of the people, will make improvements very up-hill work. No class is more, I was almost going to say, so steeped in prejudice as the village banian and money-lender. He has no intelligent self-interest. The seed grain is mainly in his hands, and so far from keeping the best for seed, his endeavour is to palm off the very worst. This is specially to be noted in time of scarcity, and was very conspicuous in the rabi sowings of 1285 fasli. As regards the new sugar-mill, one should be put up in a village with a new kolhu, and both be worked together, the patwari keeping the account of each. It is said to work

faster and cleaner than the kolhu, but the work is not, I believe, done more thoroughly. The Indian kolhu is used in Ceylon for expressing oil from the cocoanut. I know that an English Company was started at Colombo, which got out hydraulic presses in the hope of taking up the refuse of the kolhu and expressing oil from that, which would have made their fortunes; but they could get nothing out of it, and had to compete with the kolhus in expressing the oil from the fresh cocoanut, making thereby a bare five per cent. on their capital. Since this was penned, I have received a letter on the subject of the Bihia sugar-mill from the Director of Agriculture and Commerce confirming these views. The profit must be decided to justify the promotion by Government influence of any improvement in this country.

* * * *

13. *Question 18.*—In this Division there is only one metalled road from Lucknow through Sitapur to Shahjahanpur. It is a first-class road, and in excellent order. On the Sitapur and Lucknow section the traffic is heavy. The roads generally in the Division are kutcha with a patri for light traffic. They are far more suited to the means at our disposal than metalled roads, and are sufficient for the traffic if kept in order. Sitapur has a very complete system of roads, but wants bridges. Hardoi is somewhat, and Kheri much behind. Want of money has kept everything back. Kheri is in area the largest district in Oudh, and has by far the smallest revenue and local funds. It has the largest number of rivers, the least command of labour, and the greatest difficulties to overcome. Its produce greatly exceeds its consumption; so it exports largely, yet it never had a penny of provincial or imperial money for its communications until the amalgamation with the North-Western Provinces. Since then it has been much more liberally treated. Carts are more common than pack-bullocks. Indeed, the occupation of the banjarras in this part of India is gone, and they are settling down as agriculturists.

14. *Question 19.*—The Oudh and Rohilkund railway traverses the Hardoi district. Colonel Fraser's light railway scheme appears all that could be desired for this Division, and the Lucknow and Sitapur section of it is now surveyed. The railway has both equalized prices and stimulated trade. Perhaps the following fact may give an idea of it: It became evident that a ganj for the grain-dealers was much required at the Hardui railway sta-

tion, and arrangements were made, and two acres of land taken for the purpose. Before the year was out, the demand for sites was so great that it was necessary to take up thirty-eight acres of land. Every station on the Oudh and Rohilkund line is fully supplied with railway feeders, which, in busy times, glut the stations with produce that the railway cannot carry.

15. *Question 20.*—There is good water communication in this Division, the Ganges, Goomti, Chouka and Ghagra being all navigable for boats. As I am precluded from making inquiries, I cannot give figures. Some trouble has been taken to clear the passage of the Kankar reefs on the Ghogra; but I am not aware if the reef on the Goomti at Sultanpur has been cleared away.

16. *Question 21.*—I am of opinion that if Colonel Fraser's scheme of light railways be carried out, there is no part of this Division that will be obnoxious to this question. Even if it was not carried out, the roads made and projected would enable the food to be sent into every part, but the Division is not subject to famine.

* * * *

18. *Question 26.*—The inquiry opened up by this question is a very large one. I am, however, not unprepared to answer it, because I have thought much on the subject, and the result of my inquiry is that the old adage of "Jama narm tahsil garm" is a mistake, and, considering the habits of the people, the way to secure the country from the effects of famine is to make the years of plenty pay for the years of dearth. To do this a jama founded on the full yield should be assessed and collected when the season admitted of it, and liberal remissions allowed when the season came short of the standard. When there was a surplus over the normal jama on the "jama narm" principle, such surplus should be credited to a famine fund, either by investing it against a rainy day, or by judiciously expending it in works calculated to meet and mitigate such inflictions.

19. I am well aware that numerous objections can and will be raised to this proposal should it attract attention; but it appears to me that the arguments in favor of it should carry the day. We must look at the matter practically. The measure would be termed reactionary, barbarous, and treating the people like children. But is it not treating the people as they are, and as they would rather be treated? It would be said that we were discouraging thrift. I am by no means sure of that. The full pressure

of the revenue certainly begets industry in those who have to pay it, and, though thrift does not always follow industry, yet they are closely allied. The effect of a fixed jama for 30 years would be as before, only it would be fixed a little higher. But the great argument is that on the "jama narm" principle, remissions have to be made in bad years, and the "tahsil garm" is not, and cannot be, enforced, and the practical effect is that the Government has to take its share of the losses of bad years, but does not get any corresponding share of the profits of the good ones. Of course, such a system as this would require a stronger establishment, but the revenue establishments in Oudh are shamefully inefficient, even on the present system.

20. As to "bringing into operation a sense of local responsibility," it is not clear what the phrase means. If a sense of responsibility on the part of the people themselves, or of those who may be considered the leaders among them, is meant, it will take generations to bring it about. I have never met a native yet who would not stop export when, from famine elsewhere, prices began to rise; and, when it is remembered that Turgot was the first man in Europe who practically taught the opposite doctrine, and that, in the days of Chatham and Clive, the most enlightened minds in Europe agreed with what is now native opinion on the subject, and not a few people, who ought to know better, think so even yet. I do not see that we can hope for much more light as yet. Moreover, it may be questioned if the principle of making a locality recoup the Central Government for its expenditure in time of famine is a just one. The parts of the country in which there is plenty benefits enormously at the cost of the part where there is dearth, and it is not unfair that it should give back a little of it by bearing its share of general taxation. Besides, if the Central Government is to exact repayment for all it may advance, it should not interfere, but act the part of the beneficent suzerain, and only give the assistance that is asked for. I do not deny its right to forbid or withhold it, if it should see cause to do so, but I do deny its right to force its schemes on an unwilling locality, and then to claim repayment of the uttermost farthing. It is a policy which it appears to me would have the worst effect both on the Local and the Central Government: on the Local Government by emasculating it, in making it liable for expenditure over which it had no control, though it is responsible for the finances of

its Government; and on the Central Government by giving it a spending power without attaching thereto adequate responsibility in regard to the provision of the means—a position which I feel sure, if Parliament understood, it would never allow the Government of India to occupy.

21. The same remarks apply to the proposal of the Local Government to enforce the responsibility of municipalities. Power should go with responsibility. To dissociate them is to introduce a most mischievous anomaly. If the Local Government insists on the municipality repaying all sums spent in famine relief within its bounds, it must give up dictating what that relief is to be. The extent of the interference of the Local Government should be to prevent municipalities making such rules, or adopting such practices as injure other people or interests. I am afraid that the question, No. 26 of the Commission, does not contemplate the surrender of any of its power of dictation, either by the Central or Local Government; but the argument that it knows better is, in this case, no argument at all. The wisest men have long since come to the conclusion that no Government should be trusted with such powers.

22. I am, therefore, of opinion that the inferior governing body, which has the control of money, whether municipality or Local Government, should be left to deal in its own way with distress up to the extent of its own means, on the understanding that it must fairly exhaust them before it applies for assistance, that when it gets assistance it should be liable to lose the control, or at least exercise it under the instructions of its superior, but that the superior authority should not expect to be recouped for its outlay hereafter. It must, however, not be forgotten that strong Government sanitation, medical treatment, peace, and famine extinction are increasing the population abnormally, and each famine, as it occurs, may be expected to be worse than the last, unless measures be divined for supplying fresh employment for the people.

CHAPTER II.

23. *Question 1.*—Distress becomes first apparent in a rise of prices, and it is brought to the notice of Deputy Commissioners by the reports of taluqdars, tahsildars, municipal managers, and the increase of beggars, and of people seeking work. I do not know what the words "temporary or local scarcity" refer to. If to India generally, the district officer has no sources of information beyond the

Gazettes of India and his province, the newspapers which he takes in on his private account, and his private correspondence. If to his own district, his means of knowing what is going on through his tahsildars, police, and sawal khana are thoroughly effective.

24. *Question 3.*—The poorest classes are the first to feel high prices. They eat less and become weaker and thinner. In the first stage, the best way to meet it is work at local improvements; but there are some who must be gratuitously fed from the time that they cannot procure food, for they cannot work at out-door labour. I cannot answer question 4, nor I believe can any of the district officers of this Division: it would require a very special census.

25. I do not see how an officer is to make any reliable forecast of the condition of the people during any season. He cannot forecast the season, how then can he forecast its effects? During the critical time last year, in September and before the October rains fell, some officers indulged in a much more limited forecast, namely, the stocks of grain in their Divisions; but if an immense heap of variable numbers had been put into a hat, and one or two drawn out at random, they would have been quite as much to be relied on. It is utterly impossible to ascertain anything but the crop for the year. What becomes of it, until higher prices or a change in the weather taps what is hidden, it is impossible to say. It would require a district officer to have Jack the Giant-killer's coat of darkness and shoes of swiftness to find out all the grain that was hoarded away in his district, and to devote himself to that inquiry alone. Unreliable as the district officer's estimate of the food stock in his district must be, his estimate of the power of trade to bring in more must be of still less value. Government, though it asks all this at his hands, takes no pains to put any information regarding other provinces besides his own within the district officer's reach. He has no means even of knowing the prices of food staples in the adjoining Governments. If Government was to furnish him, as it easily might do, with prices current from all the different Governments, tables showing the cost of railway carriage per mile, and an Indian Bradshaw to show him the distances, I think that all he could really estimate would be the price at which importation may be expected to be remunerative, and begin and try his best and find out the numbers who would require relief at those prices. I consider this a much better basis on which to build an estimate of the wants than a failure of a

third, half, or three-quarters of the crop, for the price must so much depend on the means of getting supplies from elsewhere, and the distances whence they may be brought.

26. *Question 6.*—I am of opinion that, in the case of temporary distress, not indicative of approaching famine, the Public Works Department should not be put off its regular works to undertake the management of it, but if they have any earthworks under construction they can give relief, on the cowrie per basket system, without interfering with their regular works. Such works as are required at this state should be arranged for by district officers and municipal committees. But when works require to be undertaken on such a scale, that their supervision takes up the whole time of men of the class of Public Works Overseers, I think the management ought to be made over to the Department. Nothing could be better than the relations between district officers and Public Works officers in this Division. As to selection, the district officer and his engineer, controlled by the Commissioner and his engineer, should select them. The provision of suitable works is, however, a great difficulty. The only kind of works in which feeble and unskilled labour can be advantageously employed are earthworks. The proposal to make the light railway on the embankment of the existing roads diminishes the earthworks on it to the smallest proportions, and it is not desirable to make earth embankments on unmetalled roads, except here and there where absolutely necessary. Where such roads seem to be most required, across the low land on the bank of rivers, the experience of the Sitapur and Mehndi Ghât road on the Kadir of the Ganges shows embankment not only to be useless, but very hurtful, unless bridged on the scale of the most expensive railways. Drains, channels, the training of rivers and nalas, embankments, bunds, in fact, local hydraulic works, are what we shall alone have to fall back upon when the railways and roads have been made. The district officer is, and must be, responsible for everything in which he is not overruled.

* * * *

28. *Question 8.*—I think the relief of pardahnashin women, and people of the higher class who are destitute, cannot work, and would die sooner than go into a poor-house, should be the care of private charity. The agency must be the best, most trustworthy, and intelligent native agency the Deputy Commissioner can lay his hand upon. It must then be trusted.

CHAPTER III.

Questions 20 and 40.—I am most decidedly of opinion that so long as the measures necessary to meet the distress can be managed by the district officer and his staff—civil, engineer, and medical, with subordinate assistance alone—it should be left entirely in his hands. He is far more likely to be looked up to and obeyed than any other person, and he has in himself and his establishment an amount of local knowledge that no one else can have. Even if personally new to the district, his surroundings are far more potent to enlighten him than any other person's can possibly be. The district engineer and the medical officer are accustomed to work administratively subordinate to the district officer, and yet professionally independent of him, and as long as this agency is equal to the control of the famine operations, I am of opinion it is the best.

32. But there is a stage when it is necessary to open works on such a scale that the district agency is unequal to it. Such works should then be put in charge of an engineer, who should be administratively as well as professionally responsible, the medical department attached to the work being administratively subordinate to him. With such works the district officer should have nothing to do, not even in the provision of supplies. That should be the care of the officer in charge, if it was found necessary to supplement the resources of ordinary trade. In such cases the district officer would confine himself to the management of such operations in his district as were outside the charge of the special officer, and to the magisterial charge of the whole.

As regards paragraph 38, I do not think it is any part of the duty of Government to seek out for distress at the people's homes. The news that relief is provided spreads fast enough, and it may be considered that it is not ignorance that keeps people away. An establishment to urge people to accept the relief offered appears to me to be an unmitigated evil, and might be called an establishment for the assurance of chronic pauperism. It is very easy to overdo things of this kind and destroy the honest independence of the people, and at the same time to saddle the Government with an incubus of expenditure that will crush it in the end.

CHAPTER IV.

34. I am certainly of opinion that schemes for works should always be in hand,

in case famine breaks out. It is universally admitted that if famine had broken out in Oudh, the only work that could have met it is the Sardah Canal. It is understood that the whole project was ready. The surveys, plans, levels and elevations would all be prepared. The estimates no doubt would have to be revised for two reasons:—

1st, they were prepared some years ago, and prices no doubt have altered.

2nd, because estimates based on ordinary labour must be modified when the works become famine relief.

It is clear that a work of this kind could not be undertaken until the line and levels were known, and, unless prepared beforehand, great delay would ensue. If they were undertaken before they were properly put upon paper, something must be done in this way at first, and the work being done in a hurry would probably be bad and unsatisfactory. It appears to me that the provision of schemes for large works to meet famine is a proper first charge on the taxation to be raised under Act IV of 1878. They might be completed estimates up to the final application of the rates to the worked out measurements. The rates could be applied when the time came.

35. I do not, however, think it necessary to prepare beforehand schemes for smaller works, the supervision of which could be undertaken by the district staff, as it is possible to do what is necessary between the time famine is foreseen and its actually coming on. Of course, the excessively minute control exercised by the heads of the Public Works Department (which I think might be most advantageously relaxed in ordinary times) would have to be loosened in time of famine, and larger authority given to those on the spot. Indeed, in my opinion, if the Famine Commission propose to draw up rules for the guidance of officers in famines founded upon all these questions, I think they will commit a great mistake. The measures taken must depend greatly on the circumstances of each case, and it is not everybody that in times of emergency can resolve to set aside injudicious orders promulgated by Government on the report of such a Commission as this, and yet I do not think it too much to say that orders descending to such minutiae, applicable to all India, must, in many cases, be injudicious. I think it would be better to be more general in the directions, and more particular as to the persons who have to carry them out in times of emergency.

* * * *

*Answers to questions put by the Famine Commission
in terms of the Resolution of the Government of
the North-Western Provinces and Oudh, letter
No. 1900A of 5th July 1878.*

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

Naini Tal.—Dr. C. Planck, Sanitary Commissioner.

CHAPTER I.

Question 24. I.—I do not think any estimate can be made, which shall provide any near approach to the truth as a statement, in regard to the proportion which the four causes of death mentioned as prevalent during a time of famine (namely, starvation, privation, hurtful effects of unwholesome food, and disease proper) each bear to the total excessive mortality resulting from famine prevalence.

Indeed, I do not think it can be possible ever to frame such estimate, because in so many cases, two or three, or even all four, of the death causes mentioned operate together in the same individual in bringing about a fatal termination to the period of suffering.

II.—No such statistics are in existence as regards past famines in these provinces.

Perhaps a loss of 12 per cent. of the population may be looked for as the result of an extended period of famine prevalence over a wide area of country, the loss being due to all three causes mentioned—excessive mortality, emigration, and decreased birth-rate; but in what ratio of each I cannot say.

Question 25.—In this province a period of distress approaching to famine has been experienced during at least the last six months, January to June, 1878, inclusive; and now the escape from famine during the coming year depends entirely upon the sufficiency and favourable distribution of the rainfall of the present season, so far favourably recorded in most portions of the province. Being in the midst of the difficulty, no census operations can yet be possible or useful. But I think the information contained in the mortuary returns of the period mentioned merits attention, though little of accuracy is claimed for the results recorded.

During the year 1876 a total of 937,490 deaths from all causes was recorded in the North-Western Provinces and Oudh, the ratio per 1,000 of population being 21.94.

During 1877 the total was 840,538, the ratio per 1,000 of population being 19.67.

For the six months January to June of 1878, a total of 836,054 deaths has been recorded, being in the annual ratio of 39.13 per 1,000 of population.

It appears then that the mortality of the last six months has been comparatively very great, and to those who have seen much of people during this period there can remain no doubt that much of the excessive mortality recorded has been due to distress and disease, the result of insufficient nourishment. I need scarcely say that the mortuary record takes no separate note of deaths resulting from starvation. If provision had been made for such separate record, I believe, as the result of conversation with many police inspectors who immediately control and observe the registration, that many deaths would have been recorded under that head.

At the same time it is necessary to say that all the excess of mortality recorded during the first six months of 1878 has not been due to insufficient nourishment, for there has been during that period a record of unusual mortality from small-pox. It is possible that children who are ill-nourished may be more prone to die from attack of small-pox in years of scarcity. But that is quite uncertain, and the excess of deaths from small-pox may with propriety be eliminated from the total excess of mortality recorded, the remainder being taken to represent the mortality resulting from the prevalent distress.

Prepared on this basis, the record presents the following aspect :—

For the first six months of the year 1877 the total mortality recorded in the North-Western Provinces and Oudh was 388,676. In the first six months of 1878 it was 836,054. The difference is 447,378. For the same six months of the year 1877 mentioned the deaths from small-pox recorded were 18,676. For the first six months of 1878, 147,584 deaths were recorded from small-pox. The difference is 128,908, which deducted from the total excess of mortality leaves 318,470 deaths attributable to the abnormal conditions resulting from famine prevalence.

In regard to the portion of the population which has most suffered, the records of age at death throw some light.

Thus for the two years 1876 and 1877, the average age at death was thus recorded.

Ages at death recorded in 1876 and 1877.

Year.	Infants less than one year.	Boys and girls from 1 to 14 years.	Adults 14 to 40.	Old persons above 40.	Total.
1876 ...	228,798	210,231	232,514	265,947	937,490
1877 ...	234,157	194,439	180,287	231,651	840,538
Average ...	231,482	202,335	206,400	248,799	889,014

For the first six months of 1878 the age at death has been thus recorded :—

Age at death recorded in first six months of 1878.

Infants.	Boys and girls.	Adults.	Old persons.	Total.
206,219	222,205	153,927	253,703	836,054

Taking the average of the two years 1876 and 1877 to fairly represent the normal ratio which the different ages at death bear to the total mortality, by comparing the figures of the two tables, a very considerable departure from the normal ratio is noticeable in regard to the ages at death for the first six months of 1878 : and this will be more clearly and immediately apparent by a statement of proportions.

Thus, the normal ratios provide the following proportion of ages in every 1,000 deaths :—

Infants 261 ; children 228 ; adults 232 ; old persons 279.

Whilst for the six months of 1878 every 1,000 deaths are thus apportioned : Infants 246 ; children 266 ; adults 184 ; old persons 304. Placed side by side the figures have this appearance :—

Age at death.			Proportion to 1,000.	
			Normal.	First six months of 1878.
Infants ...	...	...	261	246
Children ...	...	...	228	266
Adults ...	...	...	232	184
Old persons ...	...	...	279	304

And it may be seen that the increased mortality has been borne in greatest measure by the children and old persons.

Answers to questions put by the Famine Commission in terms of the Resolution of the Government of the North-Western Provinces and Oudh, letter No. 1900A. of 5th July, 1878.

CHAPTER 1.

NAINI TAL

Dr. C. Planck.

(13) 0

Imp 30242 Dated 26.3.10