

MEMORANDUM
ON THE
PROGRESS OF THE MADRAS PRESIDENCY
DURING THE LAST FORTY YEARS
OF BRITISH ADMINISTRATION.

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OF BRITISH ADMINISTRATION.

BY

S SRINIVASA RAGHAVAIYANGAR, B.A., DEWAN BAHADUR, C.I.E.

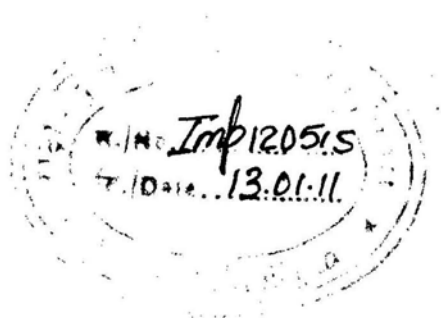
Inspector-General of Registration, Madras.



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PREFACE TO THE FIRST EDITION.

IN July 1890, Lord Connemara entrusted to me the task of examining whether the economic condition of the Madras Presidency has, on the whole, improved or deteriorated during the last 40 or 50 years of British administration and of writing a Memorandum on the subject. I was given to understand that the conclusions arrived at should be based not only on information officially on record but also on the results of independent inquiries. To ascertain whether any and what improvement has taken place in the condition of the masses of the population, it was, of course, necessary that an idea should be formed as to their condition in the past, and, for this purpose, I had to collect and read up a great mass of old reports. This took up a deal of time, and I was able to write only the preliminary portion of this Memorandum before the end of 1890. The departure of Lord Connemara to England and pressure of other official work led to the preparation of this Memorandum being laid aside for some time, and I was able to resume the work only in the latter half of 1891. Since then I have been more or less engaged on it, but as the work has had to be carried on in addition to my other official duties, it has not been possible to finish it earlier. The interval, however, has been utilized for collecting information on such matters as prices of commodities, wages of labour, &c., in order that it might be used for testing information obtained from official sources. The Government has permitted me to add another section to this Memorandum containing suggestions as to certain special measures to be adopted for the amelioration of the agricultural classes in connection with land settlements, agricultural banks, agricultural and industrial education, &c., and to revise the statistics given in the appendices to the Memorandum

with reference to the results of the last census. This will be done as soon as the results of the census become available, which will be very shortly, and the Memorandum will then be issued in a complete form.

2. I have endeavoured to make the statistics given in the memorandum as accurate as possible, but I can scarcely hope that I have fully succeeded. The information given as regards the state of things in former centuries, though derived from sources which are the best available, is admittedly imperfect, but this does not invalidate in any way the general conclusions arrived at.

3. The subject being many-sided, it is, of course, not possible in a first attempt to do more than break ground as regards the various questions dealt with. I have, therefore, printed as appendices to the Memorandum such official and other papers as throw light on the questions discussed, for purposes of easy reference in subsequent inquiries. This accounts also for the large quantity of statistical information and the large number of quotations given in the earlier portions of my Memorandum. Much of this information is new to the generation that is growing up, though not new to the generation that is passing away.

4. In conclusion, I wish to point out that the subject dealt with is the improvement in the *material* condition of the Presidency, and though there are other points of view from which the question of national well-being has to be considered, improvement in the *material* condition is the foundation on which improvement in other respects should be built up. I venture to think that if the question be impartially considered, there can be no two opinions as to the very great advance made by the country during the last 40 years.

MADRAS,
11th April 1892.

S. S.

PREFACE TO THE SECOND EDITION.

THE additional section containing suggestions as to measures to be adopted for the amelioration of the condition of the agricultural classes has now been completed, and the Memorandum is accordingly issued in a complete form.

I have made a few verbal changes in portions of the Memorandum already issued and added foot-notes in three or four places to make my meaning clearer on some points to prevent misapprehension. I have also given in the appendix extracts from a reply published by me in the *Madras Mail* to some criticisms which appeared in the *Calcutta Review* on the question of pressure of population and one or two important matters bearing on the condition of the agricultural population.

The statistics given in the appendices have been revised, as far as possible, with reference to the results of the last census. The Board of Revenue having furnished revised figures as regards the acreage of holdings for some of the earlier years, these have been adopted in the statement of acreage of holdings printed in the appendix. I have retained the life-table for the population of the Presidency taken from the census report of 1881, as the table prepared in connection with the census of 1891 relates to the population of the Madras city alone. The comparative table of persons classified under various occupations in 1871 and 1881 has also been retained unaltered, as owing to a radical change of classification adopted for the census of 1891, a comparison between the results of this census and those of the earlier censuses has not been found possible.

No pains have been spared to render the statistics as accurate as possible, but considering the great mass of figures

dealt with, it is not possible to say that all chances of error have been excluded. If any errors are brought to notice, I shall thankfully correct them and issue an erratum.

Though the work has outgrown the limits of a Memorandum, the original form has been retained, the object throughout being not so much to furnish cut and dry conclusions as to indicate the methods of investigation to be pursued and furnish materials as far as possible for forming a judgment as to the improvement which has taken place in the condition of the agricultural classes, and as to the further measures to be taken for their amelioration. On some of the subjects dealt with under the latter head, such as agricultural and technical education and widening the scope of local administration, my remarks are necessarily general, as my intention is to point out the necessity for increased attention in certain directions, and not to lay down the precise measures to be adopted, the determination of which must, of course, be based on a thorough investigation of the conditions of the localities to which they are to be applied. It is hardly necessary to add that the views I have expressed on these and other matters are my individual opinions submitted for the consideration of Government, and are not to be understood as reflecting the opinions of the Government itself.

I must in conclusion express my grateful acknowledgments to several gentlemen who have favoured me with the results of their observation and experience in connection with the inquiry forming the subject-matter of the Memorandum, and to Mr. Hill, the Superintendent of the Government Press, for the ready and willing assistance afforded by him in passing this work through the press. My thanks are also due to Mr. Cardozo, by whose kindness I have been enabled to prefix a map of the Presidency to the Memorandum.

PALMANER,
21st May 1893.

S. S.

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MEMORANDUM.

IN this memorandum I propose to examine whether the economic condition of the Madras Presidency, and especially of the agricultural classes, has improved or deteriorated during the last 40 years of British administration, and whether, if there has been improvement, it is proceeding on right lines.

SECTION I.—*The state of the country and the condition of the people in former centuries.*

2. It is generally admitted that the last century, which immediately preceded the establishment of British power in Southern India, was a period of anarchy and of suffering to the masses of the population; but it would be interesting to learn what was the condition of the people in the preceding centuries under native rulers. Information on the subject is, however, exceedingly scanty, the very names of some of the dynasties which bore sway in Southern India having been forgotten¹; and it is only recently by a laborious study of ancient inscriptions, Indian archæologists have been endeavouring to construct a South Indian history. The results of their researches, so far as they have gone, have been summarized by Mr. R. Sewell, M.C.S., in his *Lists of Antiquities of the Madras Presidency*, and I have ventured to extract Mr. Sewell's remarks in an appendix² to this memorandum. It will be seen from Mr. Sewell's account, that from the earliest historical times Southern India was divided into a number of small kingdoms, which, like the kingdoms of the Heptarchy, were continually at war with one another; that each dynasty aspired for universal dominion and asserted it as opportunities offered; that the pressure of immigration of tribes from Northern India added to the distracted state of the country caused by internecine wars; and that from the 14th century, when the Muhammadans pushed their arms to Southern India and founded Muhammadan kingdoms in the Northern Deccan, to the beginning of the 19th century, the country seldom enjoyed peace.

¹ The Pallava dynasty appears to have been a powerful one and ruled over all the East Coast districts from the Kistna to the Coleroon and to have had its capital at Conjeevaram. Even the name of the dynasty has gone completely out of the memory of the people of the country over whom it ruled.

² *Vide* appendix A, section I.

3. Among the various dynasties which have successively ruled in Southern India, the times of the Pandya, Chola and Vijayanagar dynasties. Pandiyans in the Madura and Tinnevely districts, of the Cholas in the Tanjore district and of the Vijayanagar kings in the Southern Deccan, live in tradition as a sort of "golden age." That the Pandiyans were a powerful dynasty, and that their country under Buddhist at first, and subsequently under Brahminic, influences, attained to a very considerable degree of civilization, and kept up commercial intercourse with the Greeks and Romans, seem certain. They were also great patrons of the Tamil literature, and it was during their time that the famous "Sangham" or College of Poets was established, and the greatest Tamil poems were composed. The Cholas, who rose to great power in the 11th, 12th and 13th centuries and held sway over nearly the whole of Southern India, were the builders of most of the great temples that exist in such numbers in the Tanjore district, and of the anicut across the Cauvery. They excavated several channels for irrigation, which are known by their names—Virasholanar, Vikramanar, Kirtimanar, Mudikondanar—and established agricultural colonies and Brahmin agraharams for the spread of Aryan civilization. The powerful Vijayanagar dynasty stemmed the tide of Muhammadan conquest for two centuries, i.e., 15th and 16th, until it was overwhelmed by a confederation of the Muhammadan sovereigns of the Deccan, and its magnificent capital was sacked and utterly destroyed. All these dynasties rendered important services to South Indian civilization, and, as during their times some of the greatest religious teachers and scholars and dialecticians—Sankaracharya, Ramanujacharya and Vidiaranya—lived and flourished, it is no wonder that the people of Southern India recall the memory of those times with pleasure and pride.

4. Every dynasty, however, when it attained to supreme power, drew to itself all the wealth of the surrounding provinces and adorned its capital with magnificent buildings, but the conquered provinces were generally oppressed. One of the Pandiyan kings in an inscription boasts, among his other exploits, of having set Tanjore and Uraiyur (the Chola capitals) on fire; demolished the houses, high walls, storied houses and palaces; made the tears of the wives of refractory kings flow like a river; caused the sites of the buildings to be ploughed with asses and sown with cowries; driven the Chola from his dominions into a barren place and taken away his crown of gold and given it to a poet, who sang in praise of him, &c. One of the Chola kings in the same manner, in his turn,

humbled the Pandiyans and assumed the title of Madurantaka (death of the Madura city). Allowing for great exaggeration, the language of the inscriptions shows that even the best days of the ancient dynasties were those of wars and violence, that the ambition of every king was to humble the pride of his neighbours and to spoil their territories, and that these exhausting wars must have entailed on the people an immense amount of misery, which, of course, was borne with patience and resignation, as they had had no experience of a happier condition. Large portions of the country were also covered with jungle or inhabited by tribes hardly reclaimed from savagery. From a letter of a Jesuit missionary, written in the beginning of the 18th century, it appears that on the Tinnevely coast, which is now a fully cultivated and densely populated tract, "a large jungle had for some time past been infested by tigers to such a degree that after sunset no inhabitant of any village situated in its neighbourhood dared to move outside his door. Watch was kept in every village at night and large fires were lighted for the purpose of scaring the monsters away. Even in the day-time travelling was not quite safe, and numbers of people had disappeared who had, without doubt, been seized and devoured in lonely places." The country lying on the outskirts of Trichinopoly town appears to have been covered with jungle and infested by robbers in the middle of the 16th century. The same was the case in the Coimbatore district also. Marauders were so numerous that a traveller by night was almost certain to fall into their hands. Wild beasts were so common that one missionary lost thirty of his acquaintances by their ravages within six months. Both in the Pandiya and Chola countries large tracts were, and still are, inhabited by Kallers, whom Father Martin, who lived in the 18th century in the vicinity of Kaller country, described as more barbarous than any savages in any part of the globe. His assertion is corroborated by Ward and Connor's survey account, which states that "a horrible custom exists among the females of the Collieries. When a quarrel or dissension arises between them, the insulted woman brings her child to the house of the aggressor and kills it at her door to avenge herself, although her vengeance is attended with the most cruel barbarity. She immediately thereafter proceeds to a neighbouring village with all her goods, &c. In this attempt she is opposed by her neighbours, which gives rise to clamour and outrage. The complaint is then carried to the head Ombalakar, who lays it before the elders of the village and solicits their interference to terminate the quarrel. In the course of this investigation, if the husband finds that sufficient evidence has been brought against his wife

and that she had given cause for provocation and aggression, then he proceeds unobserved by the assembly to his house and brings one of his children, and in the presence of the witnesses, kills his child at the door of the woman who had first killed her child at his; by this mode of procedure he considers that he has saved himself much trouble and expense, which would otherwise have devolved on him. The circumstance is soon brought to the notice of the tribunal, which proclaims that the offence committed is sufficiently avenged. But should this voluntary retribution of revenge not be executed by the convicted person, the tribunal is prorogued to a limited time—fifteen days generally. Before the expiration of that period one of the children of the convicted person must be killed; at the same time he is to bear all expenses for providing food, &c., for the assembly during three days. Such is their inhuman barbarity in avenging outrage, which proves the innate cruelty and the unrestrained barbarity of their manners and morals.”

5. There cannot be the slightest doubt that famines and epidemics were far more frequent and destructive in former centuries than at present. Allusions to terrible famines occur in ancient Hindu writings. The Ramayana mentions a severe and prolonged drought which occurred in Northern India. According to the Orissa legends severe famines occurred between the years 1107 and 1143 A.D. The memory of a terrible 12 years' famine³ “Dvadasavarsha Panjam” lives in tradition in Southern India. Duff in his history of the Mahrattas states that “in 1396 the dreadful famine distinguished from all others by the name Durga Devee commenced in Maharashtra. It lasted, according to Hindu legends, for 12 years. At the end of that time the periodical rains returned; but whole districts were entirely depopulated and a very scanty revenue was obtained from the territory between the Godavari and the Kistna for upwards of 30 years afterwards. The hill forts and

³ The story is as follows. There was a terrible 12 years' famine in the land, the “nine” planets who rule the destinies of men having decreed that the human race should be destroyed. At the close of the 12th year, the “planets” went on a tour of inspection to see if the work of destruction was complete. All was desolation, but there was one green spot at a distance. They repaired to the place to see what it was. There, a ryot, who was a great astrologer, had, by his art, foreseen that a great famine was coming and had taken precautions against it. In years of abundance he saved the grain (ragi) and built up the walls of his house with this grain mixed with mud and planted prickly-pear round his gardens and fields. When the drought came the man fed his goats with prickly-pear, which flourishes even during times of drought, and boiled the grain scraped from the walls of his house with the milk yielded by the goats and ate the boiled ragi and thus lived, for there was not a drop of water to be had anywhere. When the man saw the “planets,” he knew who they were and offered to feed them too. They accepted his hospitality and after a full meal lay down to sleep in crooked and inauspicious positions. When they were fast asleep the ryot put them all in auspicious positions and thus the famine came to an end and the world began once more to prosper.

strong places previously conquered by the Muhammadans had fallen into the hands of Poligars and robbers, and the returning cultivators were driven from their villages." In the works of the Hindu astronomer Varaha Mihira, there are passages tending to show that the theory of the connection between sun spots and droughts was known at the time, and this knowledge must have been the result of observations made during long periods of time. The Muhammadan historian Ferishta records two famines as having occurred in the 15th century. He states that, in 1423 A.D., no rain falling, a grievous famine was experienced throughout the Deccan, and multitudes of cattle died on the parched plains for want of water. The king (Ahmed I of the Bahmini dynasty), in consequence, increased the pay of his troops and opened public stores of grain for the use of the poor. The next year also, there being no rain, the people became seditious, complaining that the present reign was unlucky and the conduct of the prince displeasing to God. The king felt this bitterly, repaired to the mosque and prayed to God for rain. Rain came and the people were satisfied and the king was thenceforward surnamed the "saint." In 1474 A.D., there occurred a famine still more terrible. The following account is given of it by Ferishta: "When the royal standard reached the city of Bijapore, Mahomed Shah (Bahmini dynasty), at the request of Khajwa Mahomed Khan, halted to repose his fatigues, and the minister endeavoured to soothe his grief for the death of his mother. Admiring the situation of Bijapore, the king would willingly have remained there during the rainy season, but so severe a drought prevailed throughout the Deccan that the wells dried up, and the king, contrary to his inclination, moved with his army to Ahmedabad Beder. No rain fell during the next year either, and the towns in consequence became almost depopulated. Many of the inhabitants died of famine and numbers emigrated for food to Malwa, Jajnagger and Guzerat. In Telingana, Maharashtra and throughout the Bahmini, no grain was sown for two years; and, in the third, when the Almighty showered his mercy on the earth, scarcely any farmers remained in the country to cultivate the lands."

In 1570 a great famine appears (from the records of the Portuguese Mission) to have raged on the Tinnevely coast. Father Henriques, a Portuguese missionary, established famine relief houses, in some of which 50 persons were daily fed. The records of the Madura Jesuit Mission contain accounts of some famines which occurred in the 17th and 18th centuries. In 1648 there was a famine in the Coimbatore district when a great part of the population died or deserted the country. In

1659 the Muhammadans of Golconda invaded the southern countries. "The cruel devastation of the country round Trichinopoly and in the direction of Vallam led to a local famine, which within a short time compelled the population to emigrate in a body, some to the Marava country and some to the Madura country, and some to Satyamangalam; and then the Muhammadans themselves were reduced to great extremities. Their horses died from want of forage, their camp-followers ran away and thousands of them died of actual starvation. So numerous were their deaths that it was impossible to bury their corpses, which were accordingly left in great heaps in the open fields. The effluvium arising from their decomposition, combined with the ill-health resulting from want of proper food, rapidly engendered a pestilence, which carried off large numbers." The sufferings of the people during the years 1659 to 1662 appear to have been terrible. The privations undergone by the Christians are described by the Jesuit missionaries as heart-rending; upwards of 10,000 of them died of want and starvation. Tanjore appears to have suffered even more than Madura, and almost the entire Christian population of that kingdom was driven out of it either by the fear of Muhammadans or by the pangs of hunger. The Hindus also persecuted the Christians for having offended the local deities and brought drought and famine on the land by their impiety, in the same manner as Christians in European countries appear to have persecuted the Jews in the middle ages, whenever famines and plagues occurred.

In 1677 the Madura country was invaded by the Mysoreans. An extraordinary fall of rain on the Western Ghats inundated the country and swept away the low-lying villages with their entire population. This was followed by famine and pestilence, and it is stated that many of the half-starved wretches, who survived these calamities, took to brigandage and overran the kingdom unchecked. From 1709, for nearly 12 years, the Marava country, Ramnad and Sivaganga, suffered from terrible droughts alternating with floods, and large numbers of the inhabitants emigrated to Tanjore and Madura. The droughts appear to have been entirely due to the capriciousness of the seasons, as irrigation works in the Marava country were in those days in an excellent condition. Father Martin wrote in 1713: "Nowhere have more precautions been taken than in Marava not to let a drop of water escape and to collect all the

* These and other quotations from the records of the Madura Jesuit Mission are translations of extracts in French given in Mr. Nelson's *Madura Manual*. They contain the most authentic information as to the condition of the Madura district in the 17th century and I have therefore given them at length in this memorandum.

water formed by the rains in brooks and torrents. Here there is to be seen a pretty large river called Vaigaiyaru. After crossing a part of Madura, it enters Marava, and when its bed is full, which ordinarily happens a whole month every year, it is as large as the Seine. Yet, by means of canals dug by our Indians far away from their tanks, this river is so drained on all sides that it loses itself entirely and does not reach its mouth till it has spent several weeks in filling the reservoirs towards which it is diverted. The most common tanks have banks half a league long; there are others which are a league and more in length. I have seen three, more than three leagues in length. One of these tanks furnishes enough water to irrigate the fields of more than 60 plantations. As rice (paddy) must have its stem in water until it has acquired perfect maturity, after the first reaping, when there is still water in the tanks, they manure the lands and commence sowing again, for all times of the year are adapted to the growing of paddy, provided there is no deficiency of water." That prices of agricultural produce were subject to the most violent fluctuations on account of want of outlet for produce in years of abundance is evident from the following extract from the Jesuit missionary's letter:—"It is owing to the abundance of water, which the ryots caused to flow from their tanks into the fields, that they are able to grow a prodigious quantity of rice. When the rain is abundant, the price of rice and other provisions is low. They get eight merkals⁵ or large measures of unhusked rice for one fanam, which suffice to nourish a man for more than 15 days. But as soon as the rain fails, the dearness is so great that I have seen the price of one of these measures of rice rise to 8 fanams (eighteen sous)." This shows that in years of scarcity the price rose to 64 times of what it was in ordinary times! In 1733, there was a scarcity in the Chingleput district, which is stated to have been caused more by the neglect of irrigation works under the rule of the Nabobs of Arcot than by the failure of the seasons. The price of paddy rose to 40 pagodas per garce, while the ordinary price was 25 pagodas per garce. Twenty years before 1733, it is stated that 25 pagodas per garce would have been reckoned as famine price. In 1780 occurred Hyder's desolating invasion of the Carnatic followed by the grievous famine, the horrors

⁵ Mr. Nelson takes the price quoted as equivalent to 96 lb. for 2½d. Father Martin says that 8 merkals will suffice to nourish a man for more than 15 days. If we take the quantity of rice required by a person at 3 lb. per diem, the quantity required for 15 days would be 45 lb. Even if this reduced quantity were worth 2½d., the price would have been 480 lb. per rupee or 1/16th of the price at the present time, in other words the purchasing value of the rupee would have been in the beginning of the 18th century 12 times what it is now,

of which were described by Burke in one of his well known orations. From 1789 to 1792, a terrible famine raged in the Northern Circars. The famine does not appear to have extended to the north of Ganjam, and at Puri the people lived in the midst of plenty. In the Ichápur and Chicacole countries, however, the people died in thousands. The country was plunged in a state of misery and desolation truly deplorable. Whole tracts were depopulated, and when the famine came to an end, people were not forthcoming to cultivate the lands. The reports of the Collector of Rajahmundry in the beginning of the century show that many villages in the fertile delta of the Godávári had become depopulated and great difficulty was felt in arranging for the cultivation of lands.

Epidemics also were very frequent and destructive. Small-pox was very virulent, so much so that, on the Western Coast, till within recent times, on the first appearance of the epidemic in villages, the villagers used to desert them, leaving the sufferers to shift for themselves as best they could or die. So recently as the beginning of this century a fever of a very malignant type decimated the populations of Madura, Tinnevely and Coimbatore districts. A committee was appointed by Government to inquire into the causes of the epidemic, and it reported that the primary cause was the highly insalubrious condition of the atmosphere resulting from the continued and extraordinary deviations from the regular course of the seasons and the miasmata arising from the marshy grounds, the thick jungles on the hill sides and from the salt marshes on the sea coast. The committee added that there were not wanting also predisposing causes in the debilitated condition of the population owing to insufficient diet, exposure to cold and damp, and fear and anxiety. The wretched ryots were only too well prepared to imbibe the poison by their poor condition and careless habits of life, and this was conclusively shown by the fact that, on one occasion, while the ryots were dying by thousands, soldiers, convicts and others scarcely suffered at all.

6. There is also ample evidence to show that the land tax taken, not only by the Muhammadan but also by the Hindu sovereigns, was fully one-half the gross produce. Menu's proportion of one-sixth (which in the case of unirrigated lands must have operated as a heavy tax on industry and not on rent, for rent, owing to the abundance of cultivable lands and the sparseness of population, could not have come into existence) must, if it ever was observed in practice, have for several centuries been exceeded, and half the gross produce come to

The land tax collected
by Native sovereigns
heavy and oppressive

be recognized as the legal rate. Dr. Burnell, in his *South Indian Palæography*, has stated "that the land tax (for such, it originally was in South India, not *rent*) should amount to half the produce, has long been quoted as an instance of rapacity of Muhammadan and English Governments, from the illustrious B. Neiburh's early letters down to modern public discussions, by people ignorant of Indian history. But it has nothing to do with either. The inscriptions at Tanjore show that the indigenous Chola kings of the 11th century took about half the produce, and F. W. Ellis long ago asserted, on other grounds, that the tax was always more than the sixth or fourth permitted by the Sanskrit lawye~~ers~~^{es}. A consideration of royal grants would also conclusively show (as Sanskrit lawyers asserted) that the Government never had any right to the land." In the Northern Circars also the native dynasties, long before the Muhammadan conquest, appear to have taken half the gross produce as the land tax, and this rule was in force in several zemindaries and principalities which had never, or only for a short time, been under Muhammadan domination—the Ramnad zemindari for instance. The only instance in which the rule laid down by the Shastras was adopted in rating lands for the revenue was in South Canara, and in this case, the Shastric rule was resorted to with a view to enhance the land tax which had till then been levied. In South Canara, cultivation has to be carried on under more difficult conditions than elsewhere. The country is extremely rocky and uneven, and, owing to excessive rainfall, cattle are scarce and cannot be employed at all seasons of the year. The ground has to be levelled at great expense to make it fit for cultivation, and this operation has to be continually repeated, as, owing to heavy rainfall and mountain torrents, the land is constantly cut up into deep gullies. Reclamation of land could, under these circumstances, have been possible only if the land tax had been extremely moderate, and accordingly the original land tax appears to have been fixed at $\frac{1}{4}$ th of the gross produce till about A.D. 1252, when the country was conquered by a Pandiyan prince. He ruled that the $\frac{1}{4}$ th share should be delivered in rice and not in unhusked paddy, and thus increased the tax by about 10 per cent. When the country became a dependency of Vijianagar, the king Hari Har Roy fixed the land-tax at $\frac{1}{4}$ th of gross produce, i.e., $\frac{1}{4}$ th the king's share proper, and $\frac{1}{12}$ th the share allotted by the Shastras for the support of temples and Brahmins, thus enhancing the tax by 50 per cent. From information extracted by Dr. Buchanan from certain old accounts in the possession of a shanbogue at Gokurna and given in his "Journey

through Mysore, Malabar and Canara in 1800," it appears, however, that in certain parts of North Canara, according to a valuation of Krishna Raya, the king of Vijianagar, while the tax on rice lands was $\frac{1}{4}$ th of the gross produce, that on cocoanut plantations was quite half the gross produce.

7. The following extracts from the records of the Madura Jesuit Mission give the particulars connected with the land revenue administration of the Madura country under the rule of the viceroys of the Vijianagar kings in the 17th century: "The King or Grand Nayakar of Madura has but a few domains which depend immediately on him, that is to say, which form his property (for, in this country, the great are sole proprietors, and the people are only tenants, or farmers); all the other lands are the domains of a multitude of petty princes, or tributary lords; these latter have each in his own domains the full administration of the police and of justice, if justice there is at all; they levy contributions which comprise at least the half of the produce of the lands; of this they make three parts, the first of which is reserved as tribute to the Grand Navakar; the second is employed in supporting troops, which the lord is bound to furnish him with in case of war; the third belongs to the lord. The Grand Nayakars of Madura, like those of Tanjore and Gingee, are themselves tributaries of Vijianagar, to whom they pay, or ought to pay, each one an annual tribute of from 6 to 10 millions of francs. But they are not punctual in this payment; often they delay, and even sometimes refuse insolently; then Vijianagar arrives or sends one of his generals at the head of a hundred thousand men to enforce payment of all arrears, with interest, and in such cases, which are frequent, it is the poor people who are to expiate the fault of their princes; the whole country is devastated and the population is either pillaged or massacred." The revenue administration of the Mahratta chief, Ekoji, a half-brother of Sivaji, in Tanjore, appears from a letter of a Jesuit missionary in 1683 to have been, if possible, even more oppressive. The missionary states: "Tanjore is in the possession of Ekoji with the exception of a few provinces which have been seized by the Marava. Here is a short sketch of the administration of this country. Ekoji appropriates four-fifths of the produce. This is not all. Instead of accepting these four-fifths in kind, he insists that they should be paid in money; and as he takes care to fix the price himself much beyond that which the proprietor can realize, the result is that the sale of the entire produce does not suffice to pay the entire contri-

The character of the revenue administration under the Vijianagar sovereigns.

bution. The cultivators then remain under the weight of a heavy debt; and often they are obliged to prove their inability to pay by submitting to the most barbarous tortures. It would be difficult for you to conceive such an oppression, and yet I must add that this tyranny is more frightful and revolting in the kingdom of Gingee. For the rest this is all I can say, for I cannot find words to express all that is horrible in it."

Even the rule of Tirumal Nayak, who may be fitly called the "magnificent," was oppressive. Tirumal Nayak was partial to Christianity and treated the Jesuit missionaries with marked kindness; and he was even suspected of having embraced Christianity secretly. And yet this is the account given by Father Proenza in a letter, dated Trichinopoly, 1659: "Tirumal Nayakar was not spared to enjoy the victory; he was called upon to render an account to God of the evils which his treacherous policy had drawn on his people and on the neighbouring kingdoms. He died at the age of 75 years after a reign of 30 years. We cannot but acknowledge that he possessed great qualities; but he tarnished their glory towards the end of his life by vices and follies which nothing could justify. His reign was illustrious by works of truly royal magnificence, among them being the pagoda of Madura, and, above all, the royal palace, whose colossal proportions and gigantic strength recall to memory the ancient monuments of Thebes. He loved and protected the Christian religion, the excellence of which he recognized, but never had the courage to accept the consequence of this conviction. The greatest obstacle to his conversion arose from his two hundred wives, the most distinguished of whom were burnt over his funeral pile according to the barbarous custom of these nations." The Government of Coimbatore under the Naiks⁶ of Satyamangalam appears to have been no better.

⁶ *Vide Coimbatore District Manual*, pp. 89 and 90. There were, of course, also some kings and queens whose names are revered to this day. The wisdom of Kistna Deva Raya in council and his prowess in war form the theme of many a legend in the Telugu country. Of Queen Rudramma, of the Warangal dynasty, who governed the kingdom as regent during the minority of her grandson (A.D. 1257-1295), Marco Polo writes as follows: "This kingdom was under the rule of a king, and since his death forty years ago, it has been under his queen, a lady of much distinction, who for the great love she bore him never would marry another husband, and I can assure you that during all that space of 40 years she had administered her realm as well as her husband did, or better, and as she was a lover of justice, of equity and of peace, she was more beloved by those of her kingdom than ever was lady or lord of theirs before." Of Queen Regent Mangammal (A.D. 1689-1704) Bishop Caldwell in his *History of Tinnevely* states: "She eschewed wars and cultivated the arts of peace, and all through Tinnevely, as well as in Madura and the adjacent districts, she achieved a reputation which survives to the present day as the greatest maker of roads, planter of avenues, digger of wells and builder of choultries the royal houses of Madura ever produced. It has become customary to attribute to her every avenue found anywhere in the country. I have found, for instance, that all the avenues in the neighbourhood of Courtallum are attributed to Mangammal. Having done so much, she is supposed to have done all."

8. The above long extracts show not only what the real character of the administration of the Nayak dynasty, who adorned their capitals with such magnificent buildings, was, but also

The enormous revenue of former rulers

the enormous revenue which former Hindu rulers derived from land. According to the statements contained in the letters of the Jesuit missionaries, the three viceroyalties of Madura, Tanjore and Gingee were each bound to pay a tribute, varying between 6 and 10 millions of francs or between £240,000 and £400,000 to the Vijianagar sovereign, and if the Madura province, which was the most extensive of the three, paid the higher sum, it is clear that the revenue taken from the ryots of that province must have been at least three times that sum or £1,200,000. In fact, most of the lands comprised within the Madura province were in the hands of Poligars, who, it is stated, paid to the local viceroys only one-third of the revenue of their polliems, and out of this one-third, the viceroys had to pay the tribute after defraying their own expenses. The Madura province comprised the present districts, Madura, Tinnevely, Trichinopoly and a portion of the Salem district. The land revenue of these districts aggregates now $87\frac{1}{2}$ lakhs of rupees only, and when it is remembered that in the 16th and 17th centuries much of the country now under cultivation was covered with jungle and that the purchasing power of the precious metals was several times higher than it is at present, an idea may be formed of the large share of the gross produce which the Government of those days appropriated as revenue. It seems probable, as, indeed, the records of the Jesuit Mission state, that the tribute was seldom regularly paid, but was exacted by the Vijianagar king by force of arms whenever he was able to do so; but the large amount of tribute fixed shows that practically the only limit to the exactions which could be made from the ryots was their ability to pay. The amount of revenue taken by the sovereigns of the Madura and Tanjore countries would be hardly credible, were it not for the fact that there is ample evidence to show that in other parts of the peninsula the revenue taken by other sovereigns was equally great, if not greater. In Orissa, it appears that in the 12th century the Gangetic dynasty had a land revenue of about £450,000, or a little less than three times the revenue derived by the British Government from the same province, while the purchasing power of the rupee was then 8 times of what it is now.⁷ The land revenue of the whole of British India is 23 millions of

⁷ Vide extracts (appendix B, section I) from Hunter's *Orissa* as regards the revenue derived by the Gangetic kings in the 12th century and the purchasing power of silver in those days.

tens of rupees. In the time of the Emperor Akbar, the land revenue of the territories subject to his rule, which did not extend south of the Vindhya mountains, was $16\frac{1}{2}$ millions Rx. in 1594 and $17\frac{1}{2}$ millions in 1605. In Jehangir's time the land tax continued at $17\frac{1}{2}$ millions. In the earlier years of Aurangzebe's reign (1655) the land revenue was 24 millions. It rose to $34\frac{1}{2}$ millions in 1670 and to $38\frac{3}{4}$ millions in 1697. In the last year of Aurangzebe's reign (1707) the revenue fell to 30 millions. It is stated that in the official statement of the revenues of the empire presented to the Afghan invader, Ahmed Shah Abdali,⁸ when he entered Delhi in 1761, the land revenue of the empire was entered as $34\frac{1}{2}$ millions. The significance of the above figures will be rightly estimated when it is remembered that between the years 1593 and 1605 the price of wheat averaged between 186 to 224 lb. per rupee and barley $275\frac{1}{2}$ lb. per rupee, i.e., the price of wheat and barley in the end of the 16th century was between one-sixth and one-seventh of what it is at present.

9. The Hindu Shastras consigned the king, who exacted more than one-sixth or one-fourth of the produce, to infamy in this world and the torments of hell in the next, but the Muhammadan law had no such scruples. The Hedaia states : "The learned in the law allege that the utmost extent of tribute is one-half of the actual product, nor is it allowable to exact more; but the taking of a half is no more than strict justice and is not tyrannical, because, as it is lawful to take the whole of the person and property of infidels and distribute them

The devices resorted to with a view to increase revenue

⁸ The revenues of the Moghul emperors appear to have been carefully investigated by Mr. Edward Thomas in his book, entitled *The Revenue Resources of the Moghul Empire*. The particulars available as regards the revenue of the several provinces during the time of the Moghuls have been extracted from the article on "India" in Hunter's *Gazetteer* and printed in the appendix C, section I. The figures quoted appear indeed fabulous. Take, for instance, the land revenue of Orissa—£450,000—which, allowing for the depreciation in the value of the precious metals, would at the present day be equivalent to £3,600,000. The present area of cultivation in Orissa is $2\frac{1}{2}$ millions of acres. If the whole area had been under cultivation in the 12th century, the land tax per acre would be £ 1-9-0; if only half, which is more likely, it would be £2-18-0. The tax would represent a much larger proportion of the gross produce than one-half. This seems likely; in the beginning of the present century the tax represented nearly $\frac{1}{3}$ ths of the gross produce, and the cultivators were left only the barest means of subsistence and often not even that, a portion of the so-called land tax being met out of the earnings from dairy produce and domestic industries, such as weaving. Much of the revenue consisted of payments in kind, and the Government sold the grain at monopoly rates. The revenue shown in the accounts also were, to a great extent, nominal and much of it probably remained unrealized, because it was impossible to realize it. The fact, however, of the demand being fixed so high as to absorb nearly the whole of the gross produce shows that the Government took all that it could. Even the principle laid down by the Emperor Akbar, who was immeasurably in advance of his time, for regulating land assessment will not, according to modern standards, be accepted as liberal. He said: "There shall be left for every man who cultivates his lands as much as he requires for his own support till the next crop be reaped, and that of his family and for seed. This much shall be left to him; what remains is the land tax and shall go to the public treasury."

among the Mussalmans, it follows that taking half their incomes is lawful *a fortiori*." The hint given as to the lawfulness of taking the whole of the property of the infidels was of course not likely to be lost on the ever necessitous Muhammadan sovereigns. Emperor Akbar abolished many vexatious taxes and fixed the land tax at about one-third of the gross produce, but his successors re-imposed all the abolished taxes. The devices resorted to for enhancing taxation were innumerable. In the provinces of Agra and Delhi the money assessment had been fixed by Todar Mull at so much per beighah of 3,600 square ells (each ell between $38\frac{1}{2}$ to 41 inches) or nearly an acre; the tax was enhanced by the simple expedient⁹ of reducing the *beighah* to one-third of its original dimensions.

10. It is the enormous revenue which former rulers derived from land, coupled with unlimited command of forced labour, that enabled them to execute the stupendous works, whether palaces, temples, anicuts or tanks, which strike us with astonishment. The celebrated temple at Tanjore built by the Cholas in the 11th century is stated to have taken 12 years to complete. The architect, who designed the building and supervised its execution, was one Soma Varman of Conjeeveram. A village, called Sārapallam (literally the hollow at the base of the scaf-

Temples, palaces, &c., erected by means of forced labour.

⁹ Vide Grant's *Political Survey of the Northern Circars*. Appendix to the "Fifth Report" of the Parliamentary Committee on Indian affairs published by Messrs Higginbotham & Co., page 233. Colonel Wilks in his *History of Mysore* mentions 20 additional taxes imposed by Chieftain Deo Raj, the able ruler of Mysore in 1672-1704. Four of the taxes may be mentioned here as the reasons given in justification of them are very characteristic:—

(1) *Hul Hanna*, a tax upon straw produced on land which had already paid *kandaya* or the regular land tax, on the pretence that a share of the straw as well as of the grain belonged to Government.

(2) *Deo Rai Wutta* is literally loss or difference of exchange on defective coins. Deo Raj exacted this tax as a reimbursement. This was soon after permanently added to the ryot's payments. It averaged 2 per cent. of the regular assessment.

(3) *Beargee*.—A potail, for example, farmed his village or engaged for the payment of a fixed sum to Government. When his actual receipts fell short of the amount, he compelled or induced the ryots to make good the loss by a proportional contribution. This contribution was called *Beargee*, and the largest amount that was ever contributed was collected under that name in addition to the *kandaya* of each ryot.

(4) *Yeare Sunca*—*Sunca* is properly a duty on transit of goods or grain. *Yeare* is a plough. The ryot instead of carrying grain to where a transit duty is payable often sold it or consumed it in his own village. A tax of one to two gold fanams on each plough was imposed as an equivalent for the transit duty that would have been payable on the produce if it had been carried outside the village. This was called *Yeare Sunca*.

There is of course something to be said for these artifices resorted to with a view to enhance taxation. Where law is professedly based on customary usages and there is no direct legislation, if the revenue levied at customary rates becomes, owing to the fall in the value of the precious metals or otherwise, inadequate, the only way in which custom could be circumvented and a re-adjustment of taxation brought about would be the adoption of legal fictions of some sort or other.

For a list (a long one) of taxes levied by Native sovereigns in former centuries see appendices D and E, section I, to this memorandum. A grant in the reign of Rajarajadeva Chola, A.D. 1173, mentions revenue in paddy, tolls, small tax for the village police, including three handfuls of paddy, the money from water and land, the tax on looms, the tax on shops, the tax on goldsmiths, the tax on Ajivakas (Jains), the tax on oilmills, the money from the sale of fish in tanks, the money from documents, &c.

folding), 4 miles from Tanjore, is believed to be the place where the scaffolding, over which the block of granite, estimated to weigh 80 tons, was carried to the top of the tower, 200 feet high, rested. After visiting the Sun temple at Kunarak in Orissa, Abul Fazl, the famous minister of Akbar, is stated to have written as follows: "Near to Jagganath is the temple of the Sun, in the erection of which was expended the whole revenue of Orissa for 12 years. No one can behold this immense building without being struck with amazement." Dr. Hunter, in his "Orissa," mentions that the eastern entrance of the temple was till lately surmounted by a chlorite slab elaborately carved, and that its beauty tempted some English antiquarians to attempt to remove it to the Museum at Calcutta. A grant of public money was obtained for the purpose, but it sufficed only to drag the massive block a couple of 100 yards, where it now lies quite apart from the temple and as far as ever from the shore. Dr. Hunter states that the builders of the 12th century had excavated it in the quarries of the Hill States and carried it by a land journey across swamps and over unbridged rivers for a distance of 80 miles. It is evident that, to make this possible, human life and labour must have been quite as cheap in the 12th century as in the time of the Pharaohs when the Great Pyramid¹⁰ was built. Impressment of labour for public works was till recently resorted to even under British rule, and there cannot be the slightest doubt that in previous centuries all public works were carried out by this means. Hyder, when he invaded the Carnatic, seized many artisans and carried them away to his own territories to work there. Colonel Wilks, in his history of Mysore, gives an account of the frightful oppressions caused by the impressment of labour by Tippu for carrying out the fortifications of Seringapatam, where 20,000 labourers were kept employed for years.

11. In Tavernier's account of his travels we have a bird's eye view of the state of India during the reigns of Shah Jehan and Aurangzebe, when the Moghul empire was at the height of its power and glory. Tavernier was a French goldsmith, who for purposes of trade made five voyages between 1631—1668 to India, and resided several months and

Tavernier's account of the state of the country and the condition of the people.

¹⁰ "Senefru reigned 19 years, and his successor Khufu was the Cheops of the Greek lists, the builder of the Great Pyramid at Gizeh. How he lived we know but dimly, and the traditions preserved are not favorable, but he resolved to be buried grandly. Human labour was abundant and cheap, for it was supplied by slaves and captives and by the wretched peasantry, whose condition was little better. The huge masses of stone required for the building of the pyramidal tomb were dragged from the quarries by thousands of men harnessed by ropes to the rudely constructed cars and goaded by the whips of the task-masters. If they fainted and fell, they were left to die by the wayside and other conscripts took their places."—*Henry N. James*.

even years there on each occasion. He visited almost all parts of India. Masulipatam was in his time a great port and had the best anchorage on the Bay of Bengal. It was the only place from which vessels sailed for Pegu, Siam, Arrakan, Bengal, Cochin China, Mecca, Hormuz, Madagascar, Sumatra and the Manillas. Wheeled carriages could not travel between Golconda and Masulipatam. It was with great difficulty that Tavernier was able to take a small cart to Golconda, and he was obliged to take it to pieces in several places and carry them. There were no wagons in the country between Golconda and Cape Comorin. Either oxen or pack horses were used for the conveyance of merchandize. But in default of chariots, says Tavernier, "you have the convenience of much larger palanquins than in the rest of India; for one is carried much more easily, more quickly and at less cost." Palanquin bearers were paid Rs. 5 each per mensem, and if the journey was long and likely to occupy more than 60 days, they were paid at the rate of Rs. 6. The most powerful of the sovereigns south of the Ganges was the Rajah of Vellore (Vijianagar dynasty), whose authority extended to Cape Comorin, but in his country there was no trade. Shah Jehan reigned for 40 years, less as a king over his subjects than as a father over his children. His dominions were well cultivated, but there were no roads or bridges. The journey from Surat to Agra occupied from thirty-five to forty days, and one had to pay between 40 and 45 rupees for carriage for the whole journey. Burhanpore was a much ruined town, where, however, an enormous quantity of very transparent muslins was made and exported to Persia, Turkey, Muskovie, Poland, Arabia, Grand Cairo and other places. There was abundance of cotton in the neighbourhood of Burhanpore. In Sironj there were a great many merchants and artisans, and that was the reason why it contained some houses of stone and brick. There was a large trade in colored calicoes called *chites* which were sent to Persia and Turkey. There was also made in this place a description of muslin "so fine that when it is on the person you see the skin as though it were uncovered." The merchants, however, were not allowed to export it, and the Governor sent it all for the use of the Great Moghul's seraglio and of the principal courtiers. Ahmedabad was a large town with considerable trade in silken stuffs, gold and silver tapestries, saltpetre, sugar, indigo, &c. In Benares, cottons, silken stuffs, and other merchandize were sold. The manufacturers, before exposing anything for sale, had to go to the person who had the Government contract to get the king's stamp impressed on the pieces of calico or silk manufactured, in default of which they were

fined and flogged. Patna was one of the largest towns in India. The houses, however, were not better than in the majority of other towns and were nearly all roofed with thatch or bamboo. In Dacca the houses were miserable huts made of bamboo and mud. Sales were conditional on payments being made in coins coined during the current year. Foreign coins brought into the country had to be taken to the king's mint and there recoined, the expenses and seigniorage both in Persia and India amounting to ten per cent. These regulations were, however, generally evaded. In places where there were no money-changers, people would not take silver coins without putting them in the fire to test whether the silver was good. Bitter almonds and cowries were used as small change. Almonds were brought from Persia, and these were so bitter that there was no danger of children eating them. Thirty-five or forty almonds went to the *paisa* which was $\frac{1}{8}$ of a rupee. Of cowries, from 50 to 80 were exchangeable for a *paisa*, according to the distance of the place from the coast. "In India," says Tavernier, "a village must be very small if it has not a money-changer, whom they call *shroff*, who acts as broker to make remittances of money and issue letters of exchange. As in general these changers have an understanding with the Governors of provinces, they enhance at their will the rate of exchange of the rupee for the *paisa* and of the *paisa* for these shells. All the Jews who occupy themselves with money in the empire of the Grand Seignior pass for being very sharp, but in India they would be scarcely apprentices to these money-changers." Merchants were frequently plundered by the rajahs of the territories through which they had to pass. The Rajah of Kalabagh was oppressive to merchants, but since Aurangzebe came to the throne, says Tavernier, "he cut off his head and those of a large number of his subjects. They have set up towers near the town, on the high road, and these towers are pierced all round by several windows where they have placed in each the head of a man at every two feet. On my last journey in 1665, it was not long since the execution had taken place when I passed by Kalabagh, for all the heads were still entire and gave out an unpleasant odour." The dispensation of justice was very summary and unencumbered with forms. There were no jails, for the custom of the country was not to keep men in prison. Immediately the accused was taken he was examined and sentence pronounced on him and executed without delay. Tavernier went to see Meer Jumla, Nabob of Gundikot, a place in the Cuddapah district, who was a General under the King of Golconda at first and subsequently under Emperor Aurangzebe, and to whom he had shown some

diamonds for sale and of whose abilities he speaks highly. While he was with the Nabob, it was announced that 4 prisoners had arrived. "The Nabob remained silent for half an hour without replying, writing continually and making his secretaries write, but at length he suddenly ordered the criminals to be brought in, and after having questioned them and made them confess with their mouths the crimes of which they were accused, he remained nearly an hour without saying anything and continuing to write and making his secretaries write." Among these 4 prisoners was one who had entered a house and slain a mother and her three infants. He was condemned forthwith to have his hands and feet cut off and to be thrown into a field near the high road to end his days. Another had stolen on the high road, and the Nabob ordered him to have his stomach slit open and flung in a drain. Tavernier says that he could not ascertain what the others had done, but the heads of both of them were cut off. The men who worked at the diamond mines at Golconda earned only 2s. 3d. per mensem, though, says Tavernier, they were men who thoroughly understood their work. The wages being so small the men did not manifest any scruple about concealing a stone found when they could, which they did by putting it in their mouths, as they had little or no clothing on their bodies. Tavernier gives the following account of the peasantry and of the common soldiers: "One hundred of our European soldiers would scarcely have any difficulty in vanquishing 1,000 of these Indian soldiers; but it is true, on the other hand, that they would have much difficulty in accustoming themselves to so abstemious a life as theirs. For the horseman, as well as the infantry, supports himself with a little flour kneaded with a little water and black sugar, of which he makes balls, and in the evening they make *kichri*, which consists of rice cooked with dhol in water with a little salt. When eating it, they dip their fingers in melted butter. Such is the ordinary food of both soldiers and the poor people. To which it should be added that the heat would kill our soldiers, who would be unable to remain in the heat of the sun as these Indians do. I should say, *en passant*, that the peasants have for their sole garment a scrap of cloth tied round their loins, and that they are reduced to great poverty because, if the Governors become aware that they possess any property, they seize it straightway by right or by force. You may see in India whole provinces like deserts, from whence the peasants have fled on account of the oppressions of the Governors. Under cover of the fact that they are themselves Muhammadans, they persecute the poor idolators to the utmost, and if any of the latter become Muhammadans,

it is in order not to work any more; they become soldiers or fakirs, who are people who make profession of having renounced the world and live upon alms, but in reality they are great rascals. It is estimated that there are 800,000 Muhamadan fakirs and 1,200,000 among the idolators." Tavernier was a devout French Protestant Christian, and he adds: 'Although these idolators are in the depths of blindness to a knowledge of the true God, that does not prevent them from living morally well; when married, they are rarely unfaithful to their wives, and adultery is very rare among them.'

SECTION II.—*The condition of the Presidency at the end of the 18th century when most of the provinces of Southern India were acquired by the British.*

12. In the appendix A, section II, will be found extracts from official reports describing in some detail the state of the country at the commencement of the present century when most of the provinces of Southern India came under British occupation. In the earlier centuries, although the country had suffered from frequent wars, it had, with some intervals of anarchy, the advantage of a more or less settled government. In the 18th century, however, the completest anarchy prevailed and the condition of the people was miserable in the extreme. In the beginning of the century, the Moghul General Zulfikar Khan, who had command of the Payen Ghât or the country between the Kistna and the Coleroon rivers, was engaged in incessant and destructive wars for 19 years till the death of the Emperor Aurangzebe. "The express statement," says Colonel Wilks, "of 19 actions fought and three thousand coss (6,000 miles) marched by this officer in the course of six months only may afford some faint idea of the wretchedness in which the unfortunate inhabitants were involved during that period, and these miseries of war, in the ordinary course of human calamity, were necessarily followed by a long and destructive famine and pestilence. Within this period Zulfikar Khan appears to have made three different expeditions to the south of the Cauvery, levying heavy contributions on Tanjore and Trichinopoly." Soon after the Moghul conquest the Moghul power rapidly declined under the assaults made on it by the Mahrattas. When the emperor appointed a jaghirdar over a tract of country, the Mahrattas appointed another, and both of them fleeced the cultivators who often had no alternative left but to leave off cultivating and become plunderers in their turn. Shortly after followed the wars consequent on disputed succession to the subah of the Deccan and the nabobship of the Carnatic and the struggle for

supremacy between the English and the French. In the language of the "Fifth Report," when the Northern Circars were handed over by the Nizam to the English in 1766, "the whole system of internal management had become disorganized. Not only the forms but even the remembrance of civil authority seemed to be wholly lost." The Chingleput district had almost entirely been depopulated by the wars with Hyder, so much so that "hardly any other signs were left in many parts of the country of its having been inhabited by human beings than the bones of the bodies that had been massacred or the naked walls of the houses, choultries and temples which had been burnt."¹¹ The terrible memories of "Hyder kalábam," or the ravages of Hyder's cavalry, still live in stories current among the common people at the present day. Tanjore, which was in the possession of the Nabob of Arcot in the years 1774 and 1775, was almost ruined by "his inhuman exactions;" and, according to Rev. Schwartz, the famous Luthern missionary and an eyewitness, the people would have preferred Hyder's invasion to the Nabob's occupation. In the second year, the Nabob extorted from the landholders no less than 81 lakhs of rupees which is nearly double the present land revenue of the district. It will have been seen from the extracts from the letters of the Jesuit missionaries already given, that Ekoji took 80 per cent. of the gross produce as revenue, leaving only 20 per cent. to the mirasidars. On the accession of Pratap Singh to the musnud the mirasidars' varam appears to have been 30 per cent. of the pisanam and 45 per cent. of the kar crop, and the rate for the pisanam crop was raised by him and his successors till it amounted to 40 per cent. in the time of Amir Singh. How little the rights of the mirasidars were, owing to misgovernment, understood at the time will be seen from the fact that the English commissioners, who reported on the resources of the country on the deposition of Amir Singh and the installation of Surfoji under British auspices, characterized the settlement made by Amir Singh fixing the Government share of the produce at 60 per cent. and the mirasidars' varam at 40 per cent., as a "profligate remission." In the zemindar and poligar countries the only limit to the exactions to which the ryots were subjected was their ability to pay; the customary share of the produce belonging to Government was nominally half, but additional taxes were levied on various pretexts, reducing

¹¹ Even in the Tanjore delta a large part of the population must have died of famine. In 1781, the year before Hyder's invasions the outturn of crop in the Tanjore delta was 11,909,085 kalamas of paddy. In 1781-82 the outturn was 1,808,808 kalamas, and in 1782-83 only 1,563,122 kalamas. The outturn gradually rose again till it reached 10,416,746 kalamas in 1796-97.—*Vide Tanjore District Manual*, page 818.

the share enjoyed by the ryots to $\frac{1}{4}$ or $\frac{1}{5}$. Where there were no zemindars, renters were employed, especially by Muhammadan Governments, to collect the revenue and these renters mercilessly fleeced the people. Mr. Wallace, the Collector of Trichinopoly, writing in 1802, has given an account of the revenue administration of the district under the Nabob. The Government tax on wet lands was received in grain, and the whole of the grain produced was a strict Government monopoly, so strict, indeed, that if one ryot lent to another a small quantity of grain for consumption, he was severely fined. The ryots were compelled to pay in grain even the taxes on swarnadayam (literally money-rented) or garden lands which were ordinarily payable in money. The grain was taken from the mirasidars at a valuation of 7 or 8 fanams per kalam and sold back from the Government granaries at 9 or 10 fanams per kalam. When Mr. Wallace settled the Government revenue he had to base his settlement on the prices of grain in the adjoining district of Tanjore, as the natural prices of grain in the Trichinopoly district itself could not be ascertained in consequence of the Government monopoly of grain which had long been subsisting there. Of all the portions of the Presidency the most prosperous were perhaps Malabar and South Canara, which, owing to their isolated position, had not suffered from frequent and destructive wars like other provinces. Both these districts were, however, ruined by the exactions of Hyder and Tippoo, and, more especially, by the attempt of the latter to convert all the inhabitants to Islamism. Most of the landholders in Malabar fled to Travancore and Tippoo carried away nearly 60,000 Christians of South Canara into captivity to Mysore. Colonel, afterwards Sir Thomas Munro, who was Collector of Canara, wrote: "Canara has completely fallen from its state of prosperity. The evils which have been continually accumulating upon it, since it became a province of Mysore, have destroyed a great part of its former population and rendered its remaining inhabitants as poor as those of neighbouring countries. Its lands, which are now saleable, are reduced to a very small portion and lie chiefly between the Kundapur and Chandragiri rivers and within 5 or 6 miles of the sea. It is not to be supposed, however, that the whole of this tract can be sold, but only that saleable lands are scattered throughout every part of it, thinner in some places and thicker in others, particularly in the Mangalore district. There is scarcely any saleable land, even on the sea coast, any where to the northward of Kundapur, or any where inland from one end of Canara to the other, excepting on the banks of the Mangalore and some other great rivers. It is reckoned that the

population of the country has been diminished one-third within the last 40 years and there can be little doubt that its property has suffered much greater reduction. Garisappa, Ankola and Kundapur, formerly flourishing places, contain now only a few beggarly inhabitants. Honawar, once the second town in trade after Mangalore, has not a single house; and Mangalore itself is greatly decayed."

13. Dr. Buchanan, who travelled from the East to the West Coast in 1800, mentions that the country was infested by gangs of marauders to such an extent that "the smallest village of 5 or 6 houses is fortified. The defence of such a village consists of a round stone wall, perhaps 40 feet in diameter and 6 feet high. On the top of this is a parapet of mud with a door-way in it, to which the only access is by a ladder. In case of a plundering party coming near the village, the people ascend this tower with their families and most valuable effects and having drawn up the ladder defend themselves with stones, which even the women throw with great force and dexterity. Larger villages have square forts, with round towers at the angles. In those still larger or in towns, the defences are more numerous and the fort serves as a citadel; while the village or pettah is surrounded by a weaker defence of mud. The inhabitants consider fortifications as necessary to their existence and are at the expense of building and the risk of defending them. The country indeed, for a long series of years, has been in a constant state of warfare and the poor inhabitants have suffered too much from all parties to trust in any." The internal trade was greatly restricted by the number of choukies or custom-houses existing in the country and the absence of a recognized currency. Every petty poligar levied customs duty on goods passing through his estate. In the Salem district there were not less than 25 choukies on 206 miles of road or one for every 8 miles. Colonel Reade, Collector of Salem, in 1797, calculates that the customs duties alone levied on goods sent from Salem to the coast, a distance of 150 miles, added 40 per cent. to the cost price of articles exclusive of the cost of carriage, and the result was that it did not pay to send most of the articles in demand to the coast. In Salem and the Ceded districts no less than 40 different descriptions of coins were current, and, as most of them did not bear to one another the relation of multiples or sub-multiples, the shroffs were enabled to cheat poor people right and left. Tippoo Sultan used to change the value of the coins in a very arbitrary manner. When he was about to pay his troops the nominal value of every coin was raised very high and kept at that level for a few days, and during

this period, the soldiery were allowed to pay off their debts at the high valuation. Under the designation *moturpha*, taxes¹² were levied on all artisans and laborers, and these bore hardest on the poorest classes.

There were no courts of justice, the settlement of disputes being left entirely to the villagers themselves and the heads of castes and clans. Even in the province of Tanjore, where, owing to its comparative prosperity, it might be supposed that the necessity for regular courts of justice would have been felt, a court was established by the Rajah of Tanjore only about the close of the last century at the suggestion of Rev. Schwartz. Colonel Reade states: "When the district (Salem) was ceded to the Company the Chetties of certain castes, exercising judicial authority over their clients, were in the practice of levying taxes on the pullers, a caste of husbandmen, on the five castes of artisans, viz., goldsmiths, blacksmiths, carpenters, braziers, and stone-cutters, and on washermen, barbers, pariahs, chucklers and others. The Chetties likewise exacted fines for murder, theft, adultery, breach of marriage contract, also for killing brahmani kites, monkeys, snakes, &c. The Government, in consideration of these privileges, had imposed a tax on the Chetties; but, conceiving that I and my assistants might administer justice with greater impartiality than the Chetties, their judicial powers were annulled and with them the tax on castes."

14. The early reports teem with evidence of the extreme poverty of the vast majority of the agricultural classes. Dr. Buchanan states that "the peasantry here as in almost every part of India are miserably poor. One great cause indeed of the poverty of the farmers and the consequent poverty of crops in many parts of India is the custom of forcing land on people who have no means of cultivating it." Grant, in his Survey of the Northern Circars, writes in 1784 that the peasantry, "in order to carry on the common practices of husbandry

¹² No less than thirty-five taxes of Coimbatore district were abolished by Major McLeod. These were—(1) tax on potters, (2) Nama and Vibhuti khancha or taxes on those wearing the Namam and sacred ash marks, (3) fees at weekly markets, (4) tax on dye stuffs, (5) on ghee, (6) on tobacco, (7) on heaps of grain, (8) on chuman, (9) on taliaries, (10) on nirgantis, (11) on pack-bullock keepers, (12) on dancing girls, (13) on labour maidries, (14) on women committing adultery, (15) rents of lotus leaves, (16) on gardens in backyards and plantations in river banks, (17) on cattle grazing in paddy fields, (18) on young palmyra nuts, (19) on tamarinds, (20) on balapam (pot stone or soap stone), (21) on betel nuts, (22) tax on the measurement of grain on the sharing system, (23) on offerings at Mahadeveswaramalai, (24) levies for charity, (25) taxes on mamoties (hoses), (26) on village fees to village artisans, (27) on the sale of cattle, (28) on cattle stalls, (29) on water lifts, (30) on fishing, (31) on looms, (32) contributions levied by amildars from ryots whenever there was any deficiency in the amount agreed to be paid by the latter to Government, (33) contributions levied for the expenses of the Tahsildar, (34) payment of one fanam by each ryot with his first instalment of assessment and (35) plough tax (*vide Coimbatore District Manual*). See also appendix B, section II, for a list of the taxes levied and the rates at which they were assessed.

in places where the culture is simple and the meanest as in the Circars, find it expedient, at the different seasons, to borrow money at high interest in proportion to the risk incurred by the lender, and never under two per cent." Sir Thomas Munro, writing in 1797, says "many of the ryots are so poor that it is always doubtful whether next year they will be in the rank of cultivators or laborers, and few of them so rich as not to be liable to be forced by one or two bad seasons to throw up a considerable part of their farms. Many of the middling class of ryots often fail from the most trifling accidents. The loss of a bullock, or of a member of the family who worked in the fields, or confinement to bed by a fit of sickness, frequently disable them from paying their usual rent during the ensuing year." The realization of Government revenue by means of torture was one of the recognized institutions of the country and the practice indeed continued, though in a mitigated form, down to 1855. Mr. Forbes, the Collector of Tanjore, writing in that year, states that "the ryot will often appear in the cutcherry with his full liabilities in his possession, tied up in small sums about his person, to be doled out rupee by rupee according to the *urgency* of the demand, and will sometimes return to his village, having left a balance undischarged, not because he could not pay it, but because he was not forced to do so." The above quotation will serve to show how abject and demoralized was the condition of the agricultural classes in those days.

SECTION III.—*The Condition of the Agricultural Classes under British Administration during the first half of the present century.*

15. The bulk of the territories under the Government of Madras, with the exception of the Northern Circars, the Chingleput jaghir, and a few trading settlements, were acquired by the English between the years 1792 and 1803.

Early land settlements and the condition of the country during the first 30 years of the century

At the conclusion of the first war with Tippoo in 1792, the districts of Salem, Dindigul and Malabar were acquired. The second Mysore war in 1799 added Canara and Coimbatore. In 1800 the whole territory south of the Kistna and Tungabhadra rivers, comprising the districts of Cuddapah, Bellary and Anantapur and portions of Kurnool, were ceded by the Nizam. In 1799 the Rajah of Tanjore resigned his sovereign rights over that province to the English, and in 1801 the Nabob of the Carnatic made over to them the districts of Nellore, North Arcot, South Arcot, Trichinopoly, Madura and Tinnevely. The British power may thus be said to have been

fully established in this Presidency in the beginning of the century, the only territorial changes that have since occurred being the annexation of Kurnool Proper in 1838, the transfer of North Canara to the Bombay Presidency in 1862, and the addition of Bhadráchalam and Rékapalle taluks transferred from the Central Provinces to the Godávári district in 1874. Previous to the reforms in the Civil Service introduced by Lord Cornwallis, there was little to choose between English administration and that of the Native Princes so far as the agricultural classes were concerned. English writers and factors, who were paid £10 and £20 per annum and were allowed liberty to carry on private trade, found themselves suddenly transformed into governors of provinces and were not slow to make the most of their opportunities. Within a short time, however, after Lord Cornwallis' reforms, the administration had wonderfully improved and a succession of great administrators, among whom may be mentioned Reade, Munro, Graham, Hurdis, Wallace, Hodgson, Thackeray, came to the front. Their first measures were directed towards the pacification of the country and the suppression of the power of the poligars, who, with large bands of armed followers, plundered the country, committing the greatest excesses; there were in the Ceded districts alone 80 poligars, who had under their command 30,000 armed peons. The poligars in the Madura and Tinnevely districts especially, fought desperately for their independence, but were finally reduced to submission. Next followed settlements of land revenue, in the introduction of which many grievous mistakes were committed. The resources of the country had been brought to the last stage of exhaustion by the previous mis-government wars and famines, and, before there was time to ascertain the true revenue capabilities of the several districts, orders were received from Bengal for the immediate carrying out of the permanent settlement of the revenue with zemindars if such were in existence and for creating zemindars where they did not exist. The Governor-General declared that he was determined to dismiss every officer who neglected or delayed to carry out these orders. The districts of Chingleput, Salem and Dindigul were divided into a number of mittahs and sold to the highest bidders. Most of the purchasers, after pillaging the ryots, failed in the course of a year or two and the whole settlement collapsed. The system of village leases was next tried, but with the same result. In the Ceded districts especially, where, in supersession of the ryotwar system introduced by Colonel, afterwards Sir Thomas, Munro, village leases were introduced, the results were disastrous. It was expected that the villagers as a body would agree to the

leases, but, as the assessment was high, the leases were taken up by mere speculators, the renters were ruined, the ryots impoverished, and the villages returned to Government. In the Ráyadrug taluk alone Sir Thomas Munro states "nearly half the ryots had emigrated, most of the headmen were reduced to poverty, and many of them had been sent to jail. The substantial ryots, whose stock supported the agriculture of the villages, were gone." The fact was that the old assessments, which were continued in their entirety or with only slight reductions in the first years of British administration, were excessive. Under the loose systems of revenue administration which had prevailed under Native Governments, although the full demand was occasionally realized, the ryot had a great many opportunities of cheating the Government of its dues with the connivance of the revenue agents. Under the more regular system introduced by the British, however, opportunities for evasion and speculation were less frequent. Sir Thomas Munro calculated that out of Rs. 100, the value of the gross produce, the Government assessment was represented by Rs. 45-12-0 and the expenses of cultivation by Rs. 40, leaving a profit to the ryot of only Rs. 14-4-0.¹³ The profit was liable to be turned into loss not only in bad seasons, which were by no means infrequent, but also in good seasons when the prices of produce fell. He was of opinion that to encourage cultivation of land and give it saleable value, the Government demand should be limited to one-third of the gross produce, and strongly urged on Government, in 1807, the desirability of reducing the assessment on wet and dry lands by 25 and on garden lands by $33\frac{1}{3}$ per cent. The Government, while acquiescing in the justice of the recommendation, was unable to sanction it in consequence

¹³ Mr. G. E. Russel, the Collector of Masulipatam, writing in 1819, estimates the average profit of cultivation made by the ryots in the zemindari villages in the Kistna delta at even less. His calculations are as follows for wet lands —

	Rs.	A.	P.
Value of gross produce	160	0	0
Government assessment	80	0	0
Durbar charges and other taxes	27	3	0
	107	3	0
Expenses of cultivation	42	8	0
Ryot's profit	10	5	0

A ryot's family, consisting of five persons, will cost for grain alone Rs. 33. Mr. Russel adds. "The plough itself affords little towards his support, and were it not that it gives him a valuable right of pasture for his cattle and ground for his pumpkins, he could not subsist. A single she-buffalo will yield him Rs. 8 per annum in ghee alone, and the profit he derives from this source added to the labour of his women enable him to procure the necessaries of life, but even these aids will not always afford him the means of subsistence, and for 2 or 3 months in the year the fruit from his pumpkin garden, mixed up with his buttermilk or a very small proportion of meat, is the daily diet of his family."

Dr. Macleane in his *Manual of Administration* states of the ryots of Nellore: "Historically it is said that the farmers devoted themselves to cattle breeding in despair of obtaining remunerative prices from agriculture."

of orders received from England for the remittance of an additional sum of a million sterling annually, accompanied by a threat from the Court of Directors, that unless this were done they would take the question of reducing the establishments in their own hands. When Sir Thomas Munro became Governor of Madras in 1822, he sanctioned the proposals made by himself for the reduction of assessment in the Ceded districts and granted alleviations in other districts also. These measures, though they averted the further decline of the country, had, owing to adverse circumstances, little effect in improving the condition of the ryots. Within 24 years there were no less than four famines, viz., those of 1799, of 1804-7, of 1811-12 and of 1824. Nine years later in 1833-34 occurred the famine known as the Guntúr famine, which, though confined to a small area, was more destructive in its effects than that of 1876-78. The mortality and suffering¹⁴ caused by it were terrible. In the Guntúr portion of the Kistna district from one-third to half of the whole population perished.

16. From 1834 down to 1854 there was no famine of a severe type, though the country suffered from a series of unfavorable seasons. There was a severe agricultural depression on account of the low prices which then ruled of agricultural produce. This was due to causes which were in operation throughout India and were not merely confined to this Presidency. Owing to the slow development of export trade and the remittance of considerable amount of specie to England, the currency of the country had become quite insufficient for its requirements, under the altered conditions brought about by English rule, viz., the development of internal traffic consequent on a quarter of a century of peace and the substitution of cash payments for payments in kind both in the receipt of taxes and the disbursements of Government. On this subject Mr. Pedder writes: "India does not produce the precious metals and can obtain her currency only in exchange for exports. Before the introduction of British rule there was comparatively little trade; much of what trade there was was carried on by barter, and a considerable portion of the receipts and disbursements of Government was in kind, not in

¹⁴ Captain (afterwards Colonel) Walter Campbell, who was an eye-witness, describes the horrors of the famine at Masulipatam in the centre of the Kistna delta. He states "The description in 'the siege of Corinth' of dogs gnawing human skulls is mild as compared with the scenes of horror we are daily forced to witness in our morning and evening rides. . . . It is dreadful to see what revolting food human beings may be driven to partake of. Dead dogs and horses are greedily devoured by these starving wretches, and the other day an unfortunate donkey having strayed from the fort, they fell upon him like a pack of wolves, tore him limb from limb and devoured him on the spot."

cash. Hence, if the circulating medium was limited in quantity, its 'duty,' that is, the number and amount of the transactions in which it had to be exchanged for goods or labour, was still more limited and prices were high. After the general introduction of British rule, a heavier 'duty' was thrown upon the circulating medium by the extension of trade, by the greater demands of the revenue for cash (especially of the land revenue, assessments in kind being converted into assessments in coin), by the system of the British Government of paying its army and its officers in money. The circulating medium could not expand to the extent demanded by this altered state of things; importation of bullion was not sufficient to make up the amount annually withdrawn from circulation by waste, by being hoarded or by being converted into ornaments; or at any rate was not sufficient to increase the currency in proportion to the greater 'duty' thrown on it, while at the same time, with peace and a settled government there was a great extension of cultivation and consequent increase of production. Hence prices steadily fell." ¹⁵ This period was one of acute suffering to the agricultural classes and the revenues declined greatly in several districts.

17. In the reports of the Collectors on the state of the several districts during this period, and those of the Commissioners appointed to enquire into the causes of the decline of the revenues in the several parts of the Presidency, we have full information regarding the condition of the ryots in those days. I shall here mention the principal facts gathered from these reports as regards typical districts. Notwithstanding the large remissions sanctioned by Sir Thomas Munro in the assessment of the Ceded districts, we find the Collector of Cuddapah, Mr. Dalzell, writing to the Board in 1828 as follows: "The present system of revenue management is clearly favorable to the more substantial class of ryots in a degree beyond that of our predecessors (Hyder and Tippoo), but it is to be feared that the case is different with the poorer cultivators. . . . Our system, it is true, admits of the entire remission of rent when cultivation is prevented or crops are actually destroyed by want of water, but it does not allow much for deficient crops. . . . The ryots are more in the hands of merchants than perhaps you are prepared to hear. . . . The peasantry are too poor to more than keep up their cultivation with Takavi when they have met with no extraordinary losses.

¹⁵ *Vide Statement of Moral and Material Progress of India for 1882-83, vol. I, page 201.* For a more detailed explanation of the causes of the fall of prices between 1830 and 1860, see also the Article from the *Bombay Quarterly Journal*, 1867, printed in the appendix A, section III.

When they have met with such losses from the death of cattle or other cause, it is impossible to repair them without assistance from Takavi." By 1854, however, the condition of the ryots in this district had considerably improved. The orders of the Court of Directors allowing to the ryots the full benefits of the improvements to land carried out by them at their own expense had led to the construction of substantial wells and the increase of the produce of lands irrigated by them. The cultivation of indigo had increased and the poorer ryots had been assisted by advances by European firms and thus freed from the clutches of usurious money-lenders. Sir Thomas Munro estimated the value of indigo exported in 1805 from the Ceded districts at Rs. 4,37,500. The exports in 1851 from the Cuddapah district alone were valued at Rs. 13,75,182, notwithstanding the fact that the price of indigo had decreased considerably since 1805. The cultivation of sugarcane had also considerably increased, the exports of jaggery in 1851 amounting to 11 lakhs of maunds. The trade of the district was, however, much hampered by want of roads. The Collector writes in 1852: "At present the journey to Madras is dreaded by the ryots, and they object to allow their cattle to be employed in conveying indigo and other produce to the Presidency where it is required for shipment to Europe. The small number of carts and the heavy rate for carriage together with the small quantity that can be placed on the loaded cart on account of the badness of the road act as a prohibition to the export of the various kinds of oil-seeds, &c., which would find a ready market in the ports of the sea coast. In the neighbourhood of the Presidency I am informed that 50 or 55 maunds (of 25 lb.) is the usual cart-load, whilst here, with good bullocks, under 40 can only be placed in a cart. The hire per gow of 10 miles in the south is 8 annas, whilst here not less than 10 annas is accepted and they demand often 1 rupee. The hire from Cuddapah to Madras has of late been as high as 20 and 24 rupees which raises the hire of cart per gow to the exorbitant sum of about Rs. 1-8-0, nearly tripling the current rate in the south." In the Bellary district, on the other hand, the ryots had made no progress. The incidence of the land revenue assessments, notwithstanding Sir Thomas Munro's reductions, continued, owing to the heavy fall in the prices of produce, oppressive, while this district enjoyed no special advantages like Cuddapah in regard to good subsoil water-supply, and extension of indigo cultivation. Mr. Mellor, the Collector, reported in 1845: "The universal complaint and request of the ryots is to be allowed to reduce their farms, a convincing proof that cultivation is not profitable.

Land has never been saleable. Ryots, formerly substantial and capable of laying out their capital on the lands and liquidating their Sircar demand, reserving their produce until they could get a favorable price, are now sunk in debt bearing heavy interest, entirely subject to their creditors; and were it not for the aid of the Collector through his revenue subordinates, one-half, or at least one-third of the highly assessed lands would ere this have been thrown up. Husbandry is not carried on efficiently, and consequently the land seldom returns what it ought and is capable of. The number of puttah holders has increased, but they are a poor class who seek a maintenance only in husbandry with less spirit, and by no means to be compared with the substantial farmers who have fallen into difficulties and disappeared from the rent roll of the district. With regard to food and raiment the majority of them are poorly clad and ill-fed, and it is impossible to arrive at any other conclusion than that poverty is the cause. It is no new doctrine; Sir Thomas Munro declared that the ryots of the Ceded districts were the poorest of the Company's subjects." Writing in 1851, or six years later, Mr. Pelly gives the following account of the Bellary ryots: "I find that out of the whole body of farmers only 17 per cent. are in what may be termed to be good circumstances, substantial ryots who have capital enabling them to discharge their kists without recourse to the money-lender. About 49 per cent. are obliged to borrow money by mortgaging their crops and stock and 34 per cent. are obliged to sell their crops as soon as reaped and even their stock to pay their kists." Rajahmundry, *i.e.*, the present Godávári district, which may now be said to be the garden of the Madras Presidency, appears, from the report of Sir Henry Montgomery in 1844, to have been on the verge of ruin. Of the ten years between 1831-1840, 1831 and 1832 were famine years, in 1835, 1836 and 1837 the season is described as "unfavorable," and in 1838, 1839 and 1840 as "calamitous." The population which in 1830 had been 695,016 had decreased in 1840 to 533,836. The closing of the Government weaving factories in consequence of the abrogation of the Company's trading privileges in 1833 had thrown large numbers of weavers out of employment, and money to the extent of 7 lakhs of rupees on an average per annum, which was in circulation in connection with the maintenance of the factories, was withdrawn. The value of exports of piece-goods had decreased from Rs. 9,74,075 to Rs. 1,59,312. Notwithstanding a series of bad harvests, prices of grain continuously declined owing to the competition of cheap rice from Arrakan. Of the condition of the ryots under the zemindars Sir Henry Montgomery writes:

"The system of management was formed on the sole principle of extracting from the ryots the utmost possible amount of present revenue. In adverse seasons all that could be taken of the ryots was claimed on the part of the zemindar whose demand purposely exceeded the means of the ryots in ordinary seasons. In years of abundant produce, the deficiency of bad seasons was made good, so that in either case the ryot was left but the barest means of subsistence. . . . The Visabadi kist, which remained the standard beriz, was itself immoderately heavy, exceeding the possible amount of ordinary collections and not likely to be equalled in extraordinarily favorable times, by the over-rated value of the gross produce which itself was also over-estimated. It served, however, for a never-failing pretext for the demand of balances against those who, by industry or any fortuitous circumstances, procured the means of answering it in part, and was with this view continued." He, however, adds: "Though a grievous and oppressive dependence of the ryot characterized the management of zemindars and proprietors, yet the pressing wants of the ryot were in some degree seasonably supplied. Cultivation was compulsory and maintained by seasonable advances, and though the ryot was left little more than what was absolutely necessary for his maintenance, some care was taken against the discouragement of agriculture by his distress." Sir Henry Montgomery recommended the construction of the Godavari anicut, and from 1844 the condition of the district rapidly improved; from that year the seasons began to improve; French ships flocked to Cocanada for cargoes of grain, and the large expenditure on public works afforded work to thousands of the labouring classes. Sir Walter Elliot's report on Guntur shows that the terrible famine of 1833 had utterly prostrated the district, and the epidemic which broke out in the following year and prevailed to such an extent that "a man in perfect health was hardly to be seen anywhere," rendered the recovery of the country impossible for a long series of years even under the most favorable circumstances. In Nellore, the ryots had become impoverished by the low prices of grain which ruled; Indigo cultivation was tolerably remunerative, but sugarcane cultivation had entirely ceased, owing to its inability to compete with jaggery imported from the Ceded districts. The total cropped area of the district had, however, risen from 244,319 acres in 1801 to 389,802 acres in 1850. Garden lands had entirely ceased to be cultivated owing to the increased pressure of the assessment consequent on the fall in the prices of grain. As regards North Arcot, the Collector, Mr. Bourdillon, reported: "The ryots are in worse condition than they were at

the beginning of the century. However this may be, their present condition is indubitably bad and must be improved. The great body of them are certainly poor; their food is deficient in quantity as well as coarse; their clothing is scanty and poor, and their dwellings extremely mean; all this combined with gross ignorance." The unequal pressure of the assessment had the effect of throwing out of cultivation lands of the better qualities. The Collector of South Arcot, however, writing in 1840, gave a somewhat more favorable account of the ryots in his district. The population in 20 years had increased from 455,020 to 591,667, and cultivating ryots from 60,000 to 90,000. The price of labour had increased by 25 per cent. In the use of spring carriages, fine cloths, the style of houses, furniture and ornaments, there were indications of improvement. Agriculture was, however, in a backward condition owing to heavy and unequal assessment and two thirds of the cultivable lands were waste. Tanjore did not suffer to the same extent as other districts from agricultural depression owing to the improvements to irrigation works carried out by Government and increased production, and to the extension of communications and the growth of an export trade in grain with Madras and Ceylon. As regards the Coimbatore district, the Collector writing in 1840 remarks that of the previous ten seasons nine had been bad ones, and that the land revenue had fallen in consequence. There was not much variation in the value of the trade in piece-goods. The trade in coarse piece-goods exported to Bombay had improved, but that in fine goods had been annihilated by English manufactures. Prices of agricultural produce had risen owing to a succession of bad seasons. The wages of labour had also risen. "In India" the Collector remarks "greater income does not lead to improvement in the style of living, but increase of expenditure on marriages and religious ceremonies and in feeding poor relations." Bandies were coming into use; 30 years before they were not used by merchants. Money was said to be more easily procurable than before; the rate of interest on loans was from 12 to 18 per cent., while formerly the rates were from 24 to 30 per cent. on the security of jewels or landed property. In Malabar the population had increased from 465,594 in 1802 to 1,165,489 in 1837. The value of exports of cotton goods, which were manufactured in Coimbatore, Salem, Madura and Tinnevely districts increased from Rs. 4,363 in 1804 to Rs. 22,81,000 in 1837. The price of labour had not increased with the increase of cultivation. This result was due to the increase of population and cheapness of grain. The improved state of communications—roads and navigation—and the introduction, though on a small

scale, of pack bullocks and carts reduced the cost of carriage of goods to 50 per cent. of what it was 20 or 30 years before. The Collector remarks that cheap prices increased the consumption of luxuries and ameliorated the condition of the lower orders. Taking the Presidency as a whole, however, there can be no doubt that between 1830 and 1850, and more especially between 1835 and 1845, the condition of the agricultural classes was wretched. For detailed particulars regarding the income and the style of living of the different classes of ryots, reference may be made to the account of Mr. Bourdillon printed as appendix B, section III, to this memorandum.

18. The principal measures adopted by Government during this period for the development of the country and the amelioration of the condition of the agricultural classes were (1) the abolition of the sayer duties and of the duties on interportal trade; (2) the abolition of the tobacco monopoly in South Canara and Malabar and of a large number of petty and vexatious imposts; (3) the relinquishment of the right claimed by former Governments to tax improvements to lands carried out solely at the expense of the landholders; and (4) the construction of the Cauvery, Godavari and Krishna anicuts. Sir Charles Trevelyan's famous report on the sayer or inland transit duties in 1834 contains a graphic account of the frightful oppressions suffered by the people and the demoralization caused by the levy of these duties. "If we were to encourage swamps," says Sir Charles Trevelyan, "or accumulate mountains between the different districts of the country, we could not paralyse their industry so effectually as by this scheme of finance." These duties were abolished in the Madras Presidency in 1844 or ten years after the issue of Sir Charles Trevelyan's report. In the report of the Public Works Commission in 1852, we have an account of the state of communications and of the measures taken to improve them. At the time when most of the districts were acquired by the British, says this report, "there was not one complete road throughout the whole Presidency on which it would have been possible to employ wheeled carriages; their use was therefore very limited, and the distant traffic of the country had nowhere the advantage of them. Trucks were used by those who collected stone for the dams and the tank embankments, and in some localities the harvest was brought in by carts upon wheels either formed of solid pieces of timber or cut from a single block of stone. These carts were drawn by several pairs of bullocks and carried nearly a ton, but they were never used for distant journeys. Even the main streets of the largest towns

The measures taken to ameliorate the condition of ryots and the state of communications

were not practicable for wheels, and when the most wealthy used light carriages, they rarely left the precincts of their villages. The only 'made roads,' if they deserved the name, were the mountain passes which in the later wars were opened for the passage of artillery, but they had generally been destroyed by the monsoon rains before the country came into the possession of the Company. The only proof of attention to the great roads was to be seen in the fine avenues of trees, which in some districts measured several hundred miles in length; but as the roadways beneath them had never been properly formed or drained, and bridges had not been built, nor care taken to keep the pathway practicable, they were roads no longer; but in most cases from being worn down by former traffic and washed by the rains of the monsoon, they had become the drain of the country that they passed and were so much more rugged than the land on either side that their only use was as a guide to travellers who took a course as nearly parallel as the ground permitted." Prior to 1823, the English Government too had paid little or no attention to the improvement of communications, and its efforts in that direction up to the date of the report of the Public Works Commission had been feeble and intermittent. The Commissioners state that "in 1846 there were 3,110 miles of road called made road, but a large part of even this small extent was totally unbridged and totally unmade, consisting of tracks over a firm soil not considered to need making for the light traffic then using them;" that, with the exception of the districts of Salem, Madura, Tanjore and South Canara, the roads in the several districts were practically impassable during the rainy season; and that in most parts "the tracks by which the carts travel had never been made or improved, but are such as the carts are able to strike out for themselves, winding their way as best they can through the natural obstacles of the country, which are in some parts greater, in others less; in some parts rocks and hills, in others swamps and muddy streams, in others rice flats and irrigation channels." "Through, or round, or over these various difficulties" add the Commissioners "the carts find their way as best they can, changing their line from time to time at particular points, as the old tracks there become impracticable, and gradually deviating more and more from a straight line. On such roads the carts can only carry one-third of the load that they could on a good road and travel one-half the distance in a day, and there are many days in a year in which they cannot travel at all, and all perishable goods, sugar, cotton and even grain are much exposed to damage." In illustration of their remarks, the Commissioners give the following

particulars extracted from the accounts* of a Madras merchant regarding the great saving effected in the cost of carriage of goods from Madras to Wallajahnugger—a great centre of trade in those days—by the gradual improvement of the road between the two towns :—

- In 1823 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying $37\frac{1}{2}$ maunds or 900 lb. was Rs. 7-0-0 or Rs. 17-6-9 per ton.
- In 1835 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying $37\frac{1}{2}$ maunds or 900 lb. was Rs. 6-10-0 or Rs. 16-7-9 per ton.
- In 1837 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying $37\frac{1}{2}$ maunds or 900 lb. was Rs. 5-0-0 or Rs. 12-7-1 per ton.
- In 1844 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying 1,000 lb. was Rs. 4-8-0 or Rs. 10-1-3 per ton.
- In 1847 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying 1,000 lb. was Rs. 4-0-0 or Rs. 8-15-4 per ton.
- In 1851 the hire of a cart from Wallajahnugger to Madras—a distance of 70 miles—carrying 1,600 lb. was Rs. 3-10-0 or Rs. 5-1-2 per ton.

The Commissioners, among whom were Mr. Bourdillon and Sir Arthur Cotton, earnestly drew the attention of Government to the extent to which the trade of the country was being hampered by the want of communications, and urged that much greater and more strenuous efforts should be made for their improvement than had been done in the past. Another important question to which the Commissioners drew attention was the system of *corvée* or impressment of labour for public works. Their inquiries showed that there was no district in which labour was not obtained more or less by compulsion. "Little coercion is actually used," say the Commissioners, "but it is known that it will be used if required, and indeed the work-people themselves from long custom consider themselves under a sort of obligation to work for Government on the established terms, but where the remuneration is inadequate, they work unwillingly and slowly." The Commissioners then recount the various ways in which the labourers were cheated of the wages due to them; 1st, the rate allowed was too low, as in Madura where it was fixed at one-third of the rate paid by private persons; 2ndly, the device of short measurement was adopted and the work done was undervalued; 3rdly, artificers, bricklayers in particular, were often required to leave their towns, where they could get constant work, to go to a distant part of the taluk, to be separated from their friends and to submit to privations; 4thly, there was great delay in payment; and 5thly,

much of the wages entered in the accounts as having been paid was never really received by the labourers, who submitted to various deductions, which had become customary, in favour of officers employed on or about the work and in the disbursement of the money.

SECTION IV.—*Narrative of the principal facts bearing on the condition of the Agricultural classes from the middle of the present century to the present time.*

19. There was a famine in 1854, but it was restricted in its effects to the district of Bellary and was not of long duration; the chief losses were in cattle, four-fifths of which are stated to have died. The agricultural depression from which the country was suffering came to an end about this time, and a period of great prosperity for the agricultural classes commenced. For this there were several causes. The discovery of gold mines in Australia and California had increased the demand for Indian commodities in European countries whose stocks of gold had been enlarged, and this movement was accelerated by the Crimean war which stimulated exports of jute and oil-seeds, and by the cotton famine in England caused by the American war, which increased the demand for Indian cotton enormously. The merchandise exported from India, which amounted to only 13½ millions sterling in 1840–41, rose to 68 millions in 1864–65. The result was a great influx of silver into India which she was able to obtain on advantageous terms in exchange for her commodities, as the cheap new gold had, to a considerable extent, taken the place of silver in European countries and made the latter metal available for export to this country. Further, about this time loans on a large scale were raised in England for the construction of public works. For railways alone, 90 millions were raised, and it is calculated that more than half this sum was remitted to India for payment of wages to men employed on the works. The influx of all this money enabled India to replenish her insufficient currency and the prices of Indian produce rose to nearly three times of what they were in the years immediately preceding 1850. This period was also remarkable for the great reforms carried out in the internal administration of the country, which gave a great impetus to the extension of cultivation and trade. The land assessments were reduced wherever they were found to be heavy, notably in the Bellary, North Arcot, South Arcot, Trichinopoly and Kurnool Districts. The effects of these reductions under the stimulus of

The cessation of the period of agricultural depression and the commencement of a period of prosperity and internal reforms.

high prices were almost immediately felt on the acreage under cultivation and the amount of revenue. In South Arcot seven lakhs of rupees, amounting to nearly one-third of the revenue on cultivated lands, and $8\frac{1}{4}$ lakhs on waste lands were remitted in 1854. The area under cultivation the very next year rose from 632,180 to 810,707 acres. The Collector reported in 1857 that "the demand for fresh land since the reduction of assessment, and especially where the reduction was most liberal, had been very great; that the relief had given a decided impetus to industry; that the condition of the people had been indisputably improved, as was evident from the substantial houses they were building in every direction and by the independent manner in which they deported themselves; and that labour was in great demand and emigration to Bourbon had ceased." The Collector of Kurnool in the same year stated that since the reduction of assessment, cultivable lands had become every year more difficult to obtain, that the revenue came in readily, and that wells, topes of trees and indigo vats were increasing in number. Similar reports in regard to the favorable turn in the circumstances of the ryots were received from other Collectors also. The Collector of Godávári reported in 1859, "it is very gratifying to me to be able to bear testimony to the rapid increase of prosperity among the people of this district. This has been perhaps more especially apparent during the last two years and is accounted for in various ways --by the great demand for labour, by the great increase in the rate of wages and in the prices of all commodities and in the general appearance of the people. The high prices of all kinds of agricultural produce during the last few years may have aided in obtaining this result; but that the main cause is the work at Dowlaishweram no one can, I think, for a moment doubt." In the Coimbatore district the relinquishment by Government of the right to tax improvements to land effected by the ryots had led to a great extension of cultivation. Mr. E. B. Thomas, who perhaps had done more to develop the resources of this district than any other Collector, wrote in 1856, "a great many new wells continue to be dug in punjah fields, and some of the old deserted and exhausted wells are being opened, and fences restored; and garden crops are again appearing on fields long waste, some 30 or 40 years. A great proof of the practical value and policy of the garden remissions is exhibited in lands (fit for new wells or with old wells in them) becoming more saleable, and in discussions now arising on old dormant claims to lands long since waste." Again in 1857 he said, "the district only wants rain. With a moderate assessment and most of the oppressive taxes relieved, the moturpha alone

remaining, improvements and investment of capital now encouraged, the district holds up, though this is the *fourth* successive bad year of short rain. During the last 4 years, 18 inches of rain in the 12 months have been the maximum; this year there were only 16 inches and the land is parched, the crops scanty, wells nearly dry and cattle dying for want of grass and water in large numbers; but with good prices, great industry and much energy among the cultivating classes, the rental, notwithstanding all difficulties, keeps up and is collected without oppression or any balances to speak of." The testimony afforded by the reports of the Collectors in other districts in regard to the improvement in the condition of the agricultural classes which had set in about this time is equally emphatic. The ryots were granted complete freedom in the matter of taking up lands or relinquishing them. Numerous petty and vexatious imposts, grouped under the general head of moturpha, were abolished. The titles to inams or favorably assessed lands were placed on a secure basis. The Settlement Department was organized with the professed object of alleviating the heavy burdens on land and of removing inequalities in the assessments. The revenue remitted between the years 1844 to 1860 in consequence of the above measures amounted to 68 lakhs¹⁶ of rupees. As a consequence of the recommendations of the Public Works Commission already referred to, greater attention was paid to the maintenance of irrigation works and the construction of roads, railways and canals. The system of impressment of labour for Government works and the payment of discretionary wages was abolished. A new Police force was organized, which, whatever its shortcomings may be when judged by a high standard of efficiency, is incomparably superior to the unspeakably corrupt Police which it superseded; and the magistracy were relieved of police duties. In consequence of the revelations of the Torture Commissioners, who submitted their report in 1855, the employment of illegal pressure and coercion,¹⁷ whether in the collection of Government revenue or detection of crime, was prohibited under stringent penalties. The revenue and magisterial establishments were revised, the taluk and village accounts were simplified, and a scheme of examinations for qualifying for public service was brought into force in view to securing the services of a more honest and capable class of officers than were available under the old *régime*. All these reforms, it will be seen, were in the direction of freeing the ryots from official dependence and

¹⁶ A detailed statement showing the revenue remitted is printed in the appendix A, section IV.

¹⁷ See extracts from the report given in the appendix D, section IV.

trammels, while at the same time affording them every facility by the improvement of communications to take the produce to the best markets. Owing to the operation of the economic causes and the administrative improvements above referred to, both cultivation and trade increased enormously and the agricultural and trading classes enjoyed great prosperity. The ryots in the single district of Bellary made $1\frac{1}{2}$ million sterling by the sale of cotton in the 3 years of the American war. There was a considerable improvement in the condition of non-agricultural labourers also, as, owing to the construction of several railways and other public works, the demand for labour was great and continuous, and the rise in wages kept pace with the rise in the price of food-grains, the old system of impressment of labour at discretionary wages having, as already stated, been swept away. The Board of Revenue, Madras, instituted careful inquiries in 1863 regarding the rates of wages prevailing in the several districts in their relation to the prices of food-grains. The results were as follows. Agricultural labourers continued to be paid generally in kind and, therefore, the increase in the price of food did not materially affect their condition. Payment in *money* was very rare, and, where it obtained, the rates of hire had more than doubled. Grain wages also had in some instances risen, though not in the same ratio as the payment in money. In consequence of the greater demand for labour, the condition of the agricultural labourers had not deteriorated, but on the contrary had generally improved; and this was no less the case with other classes of labourers, whose wages had fully kept pace with the enhanced price of food, being in some cases doubled and trebled. A carpenter who would have received 4 annas before the rise of prices would not take less than 6 or 8 annas, while the hire of the common cooly had risen from 2 or 3 annas to 4 annas a day. The Board considered that this state of things was a satisfactory indication of the generally improved circumstances of the people. The only class which suffered by the high prices was the lower Government officials who, notwithstanding the recent enhancement of their salaries, were in no case in a better, generally in a considerably worse, position than before. Mr. Dalyell, writing in 1866, estimated that the ryot was in twice as good a position as he was in 1854. His remarks on the condition of the general mass of the population have been extracted in the appendix E, section IV.

20. There was a drought again in 1865 and 1866 all along the East Coast of the Presidency to the north of Madras and extending as far inland as the Mysore plateau, the area affected being about 43,000

The reaction.

square miles and the population 6 millions. The effects of the famine were most severely felt in the Ganjam district on account of its comparatively isolated position ; in the Ceded districts, however, in which the ryots had made large gains owing to the high price of cotton which ruled during the years of the American war, the famine was comparatively mild. The period of high prices continued till about 1870 when there was a sudden reaction. The loans for public works, which had caused the influx of silver into India, ceased ; and remittances of large sums to England for the payment of Home charges and the interest on loans already contracted became necessary ; and on account of these and other causes prices fell heavily. There was considerable uneasiness caused also by the continual increase of taxation, which, though lighter than it was before 1850, was still severely felt, as the increase synchronized with a period of falling prices. The fact was that the inflated prices of the years of the cotton famine had led to extravagance and when the reaction came, the ryots were unable to adapt themselves to the altered conditions. In the Bombay Presidency especially, the agricultural classes, finding that their lands had acquired value, borrowed largely on them from Marwadi soukars, and the repeal of the usury laws and the enforcement by the Civil Courts of extortionate contracts without considering whether the terms agreed to were equitable, had led to distress and riots. In the Madras Presidency, however, the agricultural classes who were not in the hands of soukars to the same extent did not suffer similarly. But that they felt considerably upset even in the comparatively prosperous district of Tanjore will be evident from the following remarks of the Collector of that district extracted from a report written by him in 1871. " So long as prices ruled at between double and treble the commutation rate, and *pro tanto* reduced the Government demand to between one-third and one-half of what it used to be, the Tanjore mirasidar could well afford to pay his kists in advance and at the same time indulge in the luxuries of litigation as well as in a high style of living. A deficiency in the outturn of his harvest was then a matter of comparative indifference to him. Now, however, a marked decline in prices has considerably altered this state of things. Not even the wealthier landed proprietors escaped the process of distraint under Act II of 1864 this year, and it is a fact that in April and May, the months of heavy kists, jewels of no small value came into the money market for loans which were obtained on 12 and, in several instances, as much as 24 per cent. interest. I, of course, do not mean to say that the Government demand does not, on the whole, now leave a liberal margin of profit to

the mirasidars ; for, as market prices still average 70 per cent. over the settlement commutation rate, they must be able to gain so much more beyond their mirasi-waram share as originally fixed ; but this estimate of their profits holds good only as regards the well irrigated delta taluks. There are parts of the district, especially those situated at the remote ends of irrigation channels, where irrigation is from its nature precarious, and the present system of conservancy under the direction of a highly centralized, but in point of numerical strength utterly inadequate, professional agency is necessarily inefficient. In such parts there can be no question that the recent high prices of agricultural produce have alone enabled the landholders to punctually discharge the Government dues." The decline in prices, however, benefited the landless classes whose wages had risen during the years of high prices, but did not decline when the prices fell. Inquiries¹⁸ were instituted at this time by the Government of India regarding the pressure of taxation. The Board of Revenue reported "there can be no doubt that there is a feeling of uneasiness and perplexity abroad among the tax-payers which is strong enough to warrant grave anxiety. This feeling is the result not so much of the nature or weight of the taxes as of the rapid changes in the law which have been taking place of late years. When a tax is new it is bitterly felt, but as the people get more and more used to it, their dissatisfaction wears away. The great bulk of the population being engaged in agriculture, the cultivation statistics, which are recorded with great minuteness, would show if the burden of taxation were too great ; but there is no evidence that this is the case. On the other hand, any considerable fall in the prices of produce would make the burden unbearable, and it may safely be said that the load cannot be increased or even shifted without danger." The Madras Government expressed a similar opinion. It remarked "with the exception of the income-tax, in condemning which there is a very general consensus of opinion, comparatively little soreness seems to be felt in the country at any existing Imperial taxation. The stamp duties perplex the people and probably would produce more with less annoyance, were the schedules framed on some more easily intelligible principle. The system irritates, but the tax cannot be called burdensome on the masses. The rise in prices of late years has indirectly tended to alleviate the burdens on the land, whether for local or Imperial purposes, while the concurrent improvement in wages has prevented the increase in prices from telling hard on the lower classes.

¹⁸ An abstract of the reports of Collectors and other officers in regard to the conditions of agricultural classes in 1872 is given in the appendix F, section IV.

The salt-tax has probably in this Presidency been raised to the highest point at which it will not injuriously affect consumption. The greater facilities for carriage afforded by the extension of railways have, doubtless, tended and must continue to reduce the tax to the inland consumer, but consumption is nevertheless not increasing proportionately with the increase of wealth and population. The tax, however, being an indirect one, is not likely to be the subject of complaint unless enhanced to a prohibitive rate, but it is deserving of serious consideration whether it is not now so high as to be a financial mistake in this Presidency. The other Imperial taxes, except the income-tax, do not seem to call for remark ; but as regards this latter tax, the opinions collected are almost universally condemnatory of it, not so much as being in its present form felt as a heavy burden, but as being unequal in incidence and incapable of fair adjustment, as calculated to demoralize those who assess and those who pay, as aggravating the burden of municipal taxation, as maintaining a feeling of distrust as to the financial policy of Government. . . . The experiment of local taxation is of much more recent introduction and the time has not yet arrived for forming a just judgment as to its merits. It cannot be doubted that the pressure of this taxation is more severely felt, and it must be confessed that the house-tax, as a method of providing funds for elementary education beyond the limits of municipalities, is at present regarded with strong dislike by the great majority of rate-payers. The application of the tax up to the present time has been comparatively limited and its extension will be gradual and cautious."

21. Before the country had time to recover from the shock caused by the sudden fall in prices below the inflated level they had attained in the sixties, by the new and unfamiliar forms of taxation and by the succession of laws issuing out of the legislature, it was visited with the famine of 1876-78, the most terrible in point of magnitude, intensity and duration, that was known for upwards of a century. This calamity was the result of a drought extending over three successive years and affecting a tract of country 200,000 square miles in extent with a population of 36 millions ; and no country which is purely agricultural can, of course, expect to make head against a disaster on such a scale. The area which suffered in the Madras Presidency alone was 74,000 square miles containing a population of 16 millions. Notwithstanding the gigantic efforts made by the Government, three-quarter million of persons on an average having been relieved daily for a period of 22 months, and the cost of the famine including revenue remitted amounting to

8 millions sterling, the loss of the population was nearly 4 millions. The progress of the agricultural classes in the affected districts and of the landless classes in other parts of the Presidency received a severe check, from the effects of which, however, they have since recovered with astonishing rapidity, as is evident from the increase in population, acreage of cultivation and land revenue, and from the self-reliant manner in which the Presidency has, during the last two years, borne itself against the partial drought which has prevailed in several districts.

SECTION V.—*Statistics showing the improvement in the condition of the people since 1850.*

22. In the previous pages I have endeavoured to show in a general manner, by the evidence of official reports and other publications, what was the condition of the agricultural classes both before and after the establishment of British power in this Presidency. I will now more particularly examine what progress has been made during the last 40 years under the following heads, viz., (a) population, (b) acreage of cultivation, (c) prices of produce, (d) improvement in the processes of production and in communications, (e) foreign and domestic trade, (f) taxation, and (g) the standard of living of the different classes of the population. I shall first mention what strike me as note-worthy facts in connection with the heads above enumerated, and then point out their bearing on the economic condition of the people. Detailed statistics bearing on these matters are given in appendix V.

23. A fairly correct census was taken in 1871 and the population of the Presidency was found to be $31\frac{1}{4}$ millions. Owing to the famine of 1876-78 the population decreased in 1881 to $30\frac{3}{4}$ millions. The loss of population was specially heavy in the districts of Kurnool, Bellary and Anantapur, Salem and Cuddapah, the percentage of loss ranging between 17 and 26. The census taken in 1891 shows that during the last decade the population has increased by no less than $4\frac{3}{4}$ millions or 15·6 per cent. The rates of increase in the districts which had suffered severely from the last famine are specially remarkable. These high rates are no doubt mainly due to the fact that the famine killed off disproportionately large numbers of the juvenile and aged population, leaving among the survivors a larger proportion than usual of adults of the productive ages. The rapid recovery of the population of a country after great calamities seems to be a well attested fact and has often been noticed,

Mr. Thorold Rogers, in his *Six Centuries of Work and Wages*, observes : " We learn from contemporary accounts that rapid growth of population followed on the destruction of the Black Death (in England in the 13th century). It is said that after this event double and triple births were frequent, that marriages were singularly fertile, and that in a short time the void made by the pestilence was no longer visible. The repressive check of a high standard of living was removed by the ease with which the survivors could obtain that standard and accumulate from a considerable margin beyond it. . . . I make no doubt that the population speedily righted itself, as it has done on many other occasions, when a sudden or abnormal destruction of human life has occurred in a people and the people has a recuperative power." For a consideration of the question as to what conclusions bearing on the economic condition of the people, the increase in the population during the last decade leads to, we must await the publication of the detailed results of the census. It seems, however, to be pretty clear that the normal rate of increase, viz, .8 per cent. per annum, given in the census report of this Presidency for 1881, is much below the mark. Mr. Hardy, in the chapter on the rate of increase of population contributed by him to the report on the census of British India taken in 1881, has calculated the rate of increase for the whole of the Madras Presidency to be .6 per cent. and for the tracts not afflicted with famine, .8 per cent. Between 1856 and 1871, the population had increased at the rate of 1.2 per cent. That this rate must have been higher than the rate which had obtained previously when the country suffered from severe agricultural depression is evident from the fact that the proportion of the population under 20 years of age, that is, born subsequent to 1851, to the total population censused in 1871, was found to be as high as $52\frac{1}{2}$ per cent., while, according to the life table, the proportion should have been something like 45 per cent. The increase of population during the last decade has been at the rate of 1.44 per cent. and, during the last 35 years, of .84 per cent. not merely in the non-famine tracts but throughout the whole Presidency. So severe a famine as that of 1876-78 is not likely to occur except once in a century and it would probably be nearer the mark to assume the normal increase of population under present conditions to be not much less than 1 per cent., even making allowance for mortality from droughts and scarcities, such as those that usually occur. At this rate the population will double itself in 70 years. This high rate of increase, while showing that the means of subsistence at the present day are more plentiful than in times past, shows at the same time that the pressure of

population is likely to become more severe in the future than in the past, especially when it is considered how universal is the custom of early marriages and how difficult it is to introduce salutary changes in this custom. Dr. Farr has pointed out that undue increase or decrease of population in England is capable of being remedied by regulating the number of marriages. He says: "at present (in England) one-fifth of the women who attain the age of 24·3 years never marry; if one-half of the women who attained that age never married, and if illegitimate births did not increase, the births would ultimately not exceed the deaths, and the population would remain stationary. But the same end would be almost as effectually, and less harshly, attained though four-fifths of the women who arrived at the mean age continued to marry, if instead of beginning to marry at 18, none married under 23, and the mean age of marriage were raised to 30 years; for the interval from generation to generation would be thus extended, the children to a marriage diminished and the number of women at 30 would be reduced by the loss of the younger lives" (see Farr's *Vital Statistics*). He adds that under the pressure of circumstances, the population in England, to a considerable extent, regulates itself in the manner above pointed out to prevent any impairment of the standard of living and frequently with a view to bring about a rise in that standard. Such a process of adjustment is of course much more difficult of application in India, where the marriage customs are less flexible. In England the average age of marriage for women is about 25 years, and only 18 per cent. of women of ages between 15 and 25 are married and 2 per cent. are widowed. Further, of the women who reach 25 years of age, 20 per cent. never marry. In this Presidency nearly 80 per cent. of women between the ages of 15 and 25 are married and 5 per cent. are widowed, and a considerable proportion of the widows are debarred by the customs of the country from re-marrying. I have been informed that 50 or even 40 years ago men married much later (generally¹⁹ after 30 years) than

¹⁹ The Hindu Sastras recommend marriages between men of 32 years of age and girls of 10 years, or men of 24 years and girls of 8. There is an inscription at Virinjipuram, North Arcot district, dated during the reign of Veerapratapa Devaraja Maharajah of Vijayanagar, A.D. 1419, which shows that the practice of paying money to parents of girls to induce them to give them in marriage was widely prevalent in former times. The inscription states 'in the reign of the illustrious Veerapratapa Devaraja Maharajah, the great men of all branches of sacred studies of the Kingdom drew up in the presence of Gopinatha of Arkapushkarani, a document containing an agreement regarding the sacred law. According to this, if the Brahmins of this kingdom of Padaividu, viz., Kannadigas, Tamiras, Telungas, Ilalas, &c., of all Gotras, Sutras and Sakhas, conclude a marriage, they shall from this day forward do it by Kanyadanam (gift of girls). Those who do not adopt Kanyadanam, i.e., both those who give away a girl after having received gold, and those who conclude a marriage after having given gold, shall be liable to punishment by the King and shall be excluded from the community of the Brahmins.' The inscription is interesting as showing in what manner legislation on social matters was effected in the old days.

they do now, while women were married as early as at present, even among the higher classes; the reason being poverty and the difficulty of procuring sufficient money to pay to the parents of girls for purchasing their consent to the marriage. This, combined with the system of enforced widowhood, had the effect of putting a check on the inordinate increase of population by abridging the duration of married life. The great disparity in the ages of the married couple which is said to influence the sex of the offspring, possibly accounts also for the scarcity of girls which, if current belief is to be credited, existed in former times.²⁰ During later years, however, it became quite the fashion among the well-to-do to marry their sons while still very young, though in view of the prejudicial effect which very early marriages have on the education of boys, a slight change for the better has recently become perceptible.²¹ In India as in England, increase in the means of subsistence leads to increase in the number of marriages among the lower classes. In England, this tendency is, to some extent, counteracted by the example of the middle classes who postpone

²⁰ Sir Thomas Munro notices this fact. He says with reference to the census of the Ceded districts taken when he was Collector of these districts "It is a general opinion among the inhabitants that the number of males is actually one-tenth greater than that of females. I was at first inclined to believe that the difference might have arisen from the seclusion of females, but it is not particularly great among those castes who follow this practice, but extends to every caste and every district. I examined the details of several villages in different parts of the country, and though in one village the females were more numerous than the males, and in a few others equal in number to them, yet the average result was the same as in whole districts. The coincidence of so many unconnected accounts is certainly a strong argument in favor of the popular notion, of the males being one-tenth more numerous than females."

²¹ In England the number of persons under 21 years of age who contract marriages appears to have increased as shown below —

		Persons under 21 years who marry per 1,000	
		Men	Women
1850-52	7 6	24 3
1860-62	9 5	29 6
1870-72	11 8	34 1

"The increase of early marriages is stated to be entirely due to the prosperous condition of the lower classes, the middle classes, unlike those in India, preferring to postpone marriage on account of the continual increase in the standard of living. Professor Marshall remarks "In the middle classes a man's income seldom reaches its maximum till he is 40 or 50 years old, and the expense of bringing up his children is heavy and lasts for many years. The artisan earns nearly as much at 21 as he ever does, unless he rises to a responsible post, but he does not earn much before he is 21, his children are likely to be a considerable expense to him till about the age of 15, unless they are sent to a factory where they may pay their way at a very early age, and lastly the labourer earns nearly full wages at 18, while his children begin to pay their expenses very early. In consequence, the average age of marriage is highest among the middle classes, it is low among the artisans and still lower among the unskilled labourers." It will have been inferred from my remarks that, looking at the question purely from the point of view of preventing and the increase of population, the evils of compulsory early marriages of Hindu women are mitigated by the system of enforced widowhood, and a relaxation of the restrictions on widow marriage necessitates relaxation of the system of early marriages by postponing marriages of girls for some years after the period at which by present opinion they are recognised as marriageable. This, of course, is no objection to widow re-marriage reform but only shows why the progress of the reform is so slow. There are various adjustments in other directions necessary before the reform is likely to be generally accepted.

marriages in order that the standard of living may not deteriorate. In India, on the contrary, with the classes corresponding to middle-classes in England, early marriage of girls is a religious obligation, and their example in this respect is the reverse of beneficial. These considerations will bring home to our minds the futility of the expectation that great changes can be produced in the condition of the masses, within the periods of time which are insufficient for effecting a transformation in deep-rooted national habits, and will enable us to estimate rightly the value of the advance made under such difficulties.

24. We have next to consider whether the increase in agricultural production has kept pace with the increase of population. According to the calculations already referred to, the population in 1856 must have amounted to $26\frac{1}{2}$ millions, and as there was a famine in 1854, the population in 1852 may be taken at about this figure. Between 1852 and 1891 the population has increased from $26\frac{1}{2}$ to $35\frac{1}{2}$ millions or by 30 per cent. Statistics of acreage of cultivation are not available for zemindaris and inam villages, and therefore it is not possible to calculate the increase in production with any very great accuracy. Nevertheless an analysis of the statistics of acreage available in regard to ryotwar lands serves to show roughly that the increase in the cultivated area, making allowance for the increased productiveness of irrigated as compared with unirrigated lands, is quite on a par with it if it does not exceed the increase in population. Excluding South Canara and Malabar, for which districts, owing to the absence of a survey, statistics of acreage are not available, the ryotwar cultivation was in 1852, 12·2 million acres, of which 9·5 million acres were unirrigated, 2·3 million acres were irrigated from Government sources of irrigation and 4 million of acres irrigated by private sources, but were taxed at specially high rates on account of the valuable crops grown. These areas require a double correction to be applied to them, first, because they include portions of fields left waste which were charged for, though not cultivated, and which are excluded from cultivation statistics for later years, and secondly, because the areas given in the old surveys have been found, by the recent surveys, to be somewhat below the truth. On this account, on a rough calculation, it is found that $\frac{3}{4}$ million of acres has to be added to the acreage of 1852, to admit of its being compared with the acreage of more recent years in districts which have been surveyed. In 1890 the area of cultivated lands classed as dry, i.e., not irrigated by Government sources of irrigation, was 13·64

millions of acres, of which 12·64 millions were unirrigated and 1 million was irrigated by wells constructed by the ryots at their own expense and 3·44 millions of acres of lands irrigated by Government sources. The increase in the area of cultivation is thus—(1) 25 per cent. in unirrigated lands, (2) 41 per cent. in lands irrigated by Government sources of irrigation, and (3) 138 per cent. in lands irrigated by private wells. Nearly the whole of the increase under the second head amounting to upwards of a million of acres is due to the extension of cultivation in tracts commanded by the great anicut systems—Godávári, Kistna, Cauvery, Pennér, Pálar and Támbraparni—which secure an almost unfailing supply of water, and every acre of irrigated lands in these tracts produces, on an average, not less than four times as much as they would do if they were unirrigated. Moreover the increase of production due to the great irrigation systems cannot be measured merely by the increase in the acreage of cultivation, as the increase of produce, consequent on an assured supply to lands which before the anicuts were constructed were dependent on a precarious supply of water, and on additional supply of water for a second crop to lands cultivated formerly with a single crop, amounting in all to about $1\frac{1}{2}$ millions of acres, must be taken into account. Similarly, the million acres irrigated by private wells produce as much at least as 4 millions of acres of unirrigated lands. Making allowance for these considerations and taking into account the increase in the cultivated area under such articles as cotton, indigo, ground-nut, coffee, sugarcane, tea and cinchona, it seems to me that the percentage of increase in production cannot be less than 3 or 4 times the increase in population. There are no means of making an exact calculation; all that can be stated is that the increased production is very considerable. The area under cotton, which in 1852 was a little less than a million of acres, has increased to more than $1\frac{3}{4}$ millions of acres. The area under indigo has increased from about 200,000 acres to more than 500,000 acres or by 150 per cent.; ground-nut which in former years was cultivated to a small extent to meet local demands has now become a very remunerative commercial crop. It is chiefly cultivated in the South Arcot district where the acreage under it has risen from about 6,700 acres in 1852 to 190,000 acres in 1889–90. The area under sugarcane has risen from 38,400 to 70,000 acres. Though the acreage under this crop may appear small, the crop itself is very valuable, the value of the outturn per acre being more than 20 times the outturn on dry lands. The area under coffee and tea is 55,000 and 5,000 acres respectively. These crops are of course extremely valuable.

25. In this connection there are two prevalent notions which deserve some notice. These are (1) that the rainfall has sensibly diminished of late years, and (2) that the fertility of the soil, under the improvident and non-restorative systems of native cultivation, has deteriorated.²² Both these notions have been shown, by scientific men who have given close attention to the subject, to be unfounded to a great extent. The prevalence of these impressions is sufficiently accounted for by the habit of old people in all countries of asserting that "in the days of their youth the fields were greener and the sun warmer" (or as we should say in India "less intense"). We have statistics of the rainfall for some stations for the last 80 years, and they do not show that there has been any appreciable diminution in the quantity of annual rainfall during this period. The complaint of deficient rainfall is also, it must be remembered, not a new one. The following passages extracted from Buchanan's "Journey" in 1800 show that people complained in much the same way then, that they do now. "*Tarkeri* (Coimbatore district). The people say that since the death of Hyder (i.e., since 1782 or for 18 years) they have had one year with a proper fall of rain. This year there has been abundance, but it came too late by two months." "*Dharapuram*. Owing to the want of rain and of stock the farmers are not able to cultivate all that they rent, &c." "*Pryapattana, Grishmaritu* (summer season) contains the two months including the summer solstice. It is said that formerly during this period the weather used to be constantly clouded, with a regular unremitting drizzling rain; but for the last half a century such seasons have occurred only once in 4 or 5 years; and in the intervening ones, although the cloudy weather continues, the constant rain has ceased, and in its place heavy showers have come at intervals of 3 or 4 days, and these are succeeded by some thunder. *Varsharitu* (rainy season). Formerly the rains used to be incessant and heavy; of late years they have not been so copious oftener than once in 4 or 5 years; still they are almost always sufficient to produce a good crop of grass and dry grains, and one crop

²² A third impression which is prevalent, though not confined to this country, is that men in past times were giants in stature, had more robust health and lived longer than their degenerate descendants do now. In England it was currently believed that the knights of the middle ages were men of great stature, until it was shown that the armour worn by them was too small to fit the present race of men in the upper classes of society. In European countries, the average duration of life has increased owing to diminution in infant mortality. It may be that the diminution of risks to life has had the effect of prolonging to adult age frail lives which under the old conditions would have had no chance of surviving to that age, but as the conditions favorable to the life of frail infants are also conditions which diminish the risks to which fairly healthy persons are subject, their general effect on the whole population cannot be other than beneficial. These remarks, in so far as the present conditions differ from the past, are equally applicable to this country.

of rice. Pryapattana has therefore been termed the chosen city of the natives of Karnata who suffer from scarcity of rain." . . . "*Haltoray. Change of climate.* The natives say that formerly the rains were so copious that by means of small tanks a great part of the country could be cultivated with rice. These tanks were only sufficient to contain 8 or 10 days water, and to supply the fields when such short intervals of fair weather occurred. For 40 years past, however, a change having taken place in the climate, no rice has been cultivated except by means of large reservoirs." Buchanan adds "the truth of this allegation is confirmed by the number of small tanks, the ruins of which are now visible; and by the plots of ground levelled for rice which are near these tanks and which are now quite waste." Possibly this was the result of the clearance of forests which are stated to have some effect in regulating and conserving local falls of rain but no influence in modifying the general features of climate. Dr. Brandis, who might be expected to claim for forests all the merit they could justly lay claim to, states: "There is no proof that forests modify the climate to any great extent. The great features of climate depend on cosmic causes, which are independent of local circumstances. Large extent of forests or large areas of irrigated lands may, however, have some effect in increasing the rainfall at certain seasons, and there is no doubt that in the vicinity of dense forests and on irrigated lands, the air near the ground is generally moister during the dry season and the dew heavier." In the Godávári district, where forests had been extensively cleared in recent times, Mr. Henry Forbes, the Sub-Collector, reported in 1848 that the forest had receded, but that he thought it open to question whether the diminution in the streams which came from the hills was not in the time which the stream took to exhaust itself, instead of in the body of water passing down to its bed; whether the rain was not said to be less in quantity only because, falling on the hills and no longer restrained by the trunks and roots of trees and allowed no time to percolate through the soil and fissures of rocks and to supply the reservoirs of springs, it poured down in torrents and left the water-courses dry as soon as the rains had ceased to fall. Moreover, the want of communications during the rainy season, and the difficulty in crossing unbridged rivers, and the liability of the country to inundations in past times were all calculated to produce an exaggerated impression regarding the quantity of rainfall. The accounts of famines in past centuries given in the previous portion of this memorandum will show that large portions of Southern India were liable to severe and prolonged droughts quite as much in past times as at present.

Mr. Graham writing in 1797, *i.e.*, nearly a century ago, says of Salem : " A person who had not experienced the contrary would be led to suppose that the Baramahal possessed peculiar advantages of situation, and that, lying between Mysore and the Carnatic, the soil would experience the best effects from a participation of both monsoons. We know, however, that the rains are extremely precarious, and that when they do fall, they are either partial and scanty, or if plentiful, that the season has passed ; and the only purpose they serve, as at present, is from their violence to destroy half the tanks in the country. How often has the farmer, deceived by a passing shower, imprudently committed his seed to the ground, and how often have his hopes of a return been blasted by a succeeding drought, equally fatal to his crop as to his cattle ! How frequently have we observed whole fields of grain apparently vigorous, and rapidly advancing to perfection, destroyed in one night by devouring insects, and the seemingly full-eared cumbu, which one would pronounce in a few days fit for reaping, exhibiting when rubbed between the hands nothing but a useless powder, the consequence of its premature formation ! " I have examined the accounts given in the old reports²³ regarding the character of the agricultural season each year from the beginning of the century, and I find that there is no reason to believe either that the rainfall has diminished or that unfavorable seasons are more frequent now than in the past. There were then as prolonged and frequent droughts as now. If the drought was of short duration and affected small portions of country, the people managed to get on ; if, however, by a combination of circumstances the drought continued over two or three years and affected simultaneously large portions of the country, the result was famine. The destruction of forests appears, however, to have affected the supply of subsoil water in the vicinity of hills and led to the drying up of streams fed by springs. Dr. Brandis remarks that " in the Coimbatore district the Noyel river, the main channel of which rises in the Bolampatti valley, probably has less water now in the dry season than it had 30 years ago. In the Palladam taluk the old anicuts now remaining unused attest this." The importance of forests in subserving the needs of agriculture cannot of course be over-estimated, but there is, on the whole, no

²³ Surgeon-General Edward Balfour, after instituting careful enquiries in 1849, came to the conclusion that " it may be confidently stated that in India within the present century, the rainfall has not diminished, nor has the quantity annually falling now become more uncertain, but that man, partly ignorant and wholly reckless, has denuded the soil of its trees and shrubs and bared the surface to the sun's rays, thus depriving the country of its conservative agents and making the extremes of floods and droughts of more frequent occurrence and more severe."

reason to suppose that their clearance has diminished the rainfall ²⁴ to such an extent as materially to affect the yield of lands. The disappearance of forests has undoubtedly improved the public health, for many tracts of country, in the Madura district for instance, now perfectly healthy were, 60 or 70 years ago, notoriously feverish.

26. If then, there is no sufficient evidence in regard to any diminution in the annual rainfall, there is still less evidence to show that there has been any sensible deterioration in the productive capacity of lands. The arguments based on a comparison of the rates of average outturn per acre for the several grains given in the Ayeen Akbari with the outturns assumed at the present day, will not bear examination. According to the Ayeen Akbari tables, the average outturn per acre in the middle of the 16th century was for rice (apparently unhusked) 1,338 lb., for wheat 1,155 lb., for cotton unpicked 670 lb. The averages in these tables have been arrived at with reference to the rates for good, bad and middling lands, but without any attempt being made to find out under which of these classes the area predominated. Moreover, with the immense increase in the acreage of cultivation especially of inferior soils, the average outturn must necessarily decrease, while to establish a deterioration it must be shown that lands under cultivation in former times yield less now than they did before. In the case of wheat, especially, irrigation makes a great difference, the yield of irrigated wheat being from 50 to 300 per cent. in excess of the outturn of unirrigated wheat. The dominions of the Emperor Akbar did not extend to the south of the Vyndhia Mountains, and the Ayeen Akbari rates cannot therefore be applied to South India. If the rate for rice, 1,338 lb., given in these tables refer to unhusked rice, the Madras settlement average (1,621 lb.) is considerably higher. Cotton is frequently sown as a mixed crop, and it is difficult to calculate its average outturn. There is nothing, however, to show that its outturn has diminished. In a recent report ²⁵ on the cultivation of

²⁴ Mr. Mackenzie in the *Kistna District Manual* remarks "It would no doubt be interesting to find any indication of change of climate, for it is supposed that in former centuries, before the forests were cleared, there was a much heavier rainfall. Hiouen Tsang's description of Dhanakacheka with trees and gushing fountains supports this idea, but we have seen that even in the 13th century there were quarrels about pasture land, bitter enough to cause war, and we shall see in the following chapter that the Muhammadan historians described the famines in A.D. 1423 and 1474 in language that might have applied to the Guntur famine of 1832. We cannot say therefore that there is historical evidence that the climate has become worse."

²⁵ In a note to the report of the Agricultural Inspector it is stated that the year to which the report related was a good year and that therefore the estimate of average yield of cotton should be accepted with some caution.

cotton in the Tinnevely district submitted to the Madras Agricultural Department by an Agricultural Inspector, it is stated, "cotton soils of the best quality sell for Rs. 1,000 a sanghili (3.64 acres); ordinary soils for Rs. 500, while inferior soils sell below Rs. 200. In fertile soils and under good treatment 1,000 lb. seed cotton per acre is no unusual outturn; an ordinary good yield of cotton may be taken to vary from 750 lb. to 900 lb. of seed cotton, while 500 lb. may be taken as a fair average of yield taking all soils into consideration. These figures have been arrived at from the statements of different classes of ryots and include the first and second courses of pickings. It is assumed by dealers that 6 podis (of about 328 lb. each) of seed cotton are required to produce 500 lb. of lint, and therefore the average outturn of an acre is 125 lb. of lint. In the United States, the average outturn of cotton is about 567 lb. seed cotton or 189 lb. lint per acre." In ²⁶ 1862 the average outturn of Tinnevely cotton was reported to be 300 lb. of seed cotton or 75 lb. of lint. The Agricultural Inspector adds "that the outturn in Tinnevely is somewhat greater than formerly is admitted by the ryots, and unless this were a well known fact they would make no such admission. The explanation may be found in the fact that the system of adding all kinds of earthy matter to the manure heaps, by which the quantity is not only largely increased but is also better decomposed, is only a recent practice. Moreover all soils are now kept much cleaner than before owing to closer and better tillage." The allegation regarding the diminished outturn of lands is based to a great extent upon the *a priori* reasoning that when the ingredients forming plant food abstracted from the soil by continuous cropping are not restored to it by artificial manuring, it must necessarily deteriorate. Recent enquiries made into agricultural practices in this country by scientific agricultural experts have, however, resulted in showing that the injurious effects attributed to native methods of agriculture are grossly exaggerated. Professor Wallace in his *India in 1887* emphatically denies that the fertility of the

²⁶ Mr. Nicholson in his valuable "Preliminary Note" printed in the *Report of the Madras Agricultural Committee* remarks: "Forty years ago the yield of cotton in Bellary, Cuddapah, Coimbatore and Tinnevely was 90, 50, 50 and 80 lb. per acre respectively (Collector's reports in Wheeler's Hand-book) while the present average even on good black cotton soil in those districts is not above 62½ lb. per acre." The statement appended to Wheeler's Hand-book, however, shows that the outturn of clean cotton per acre was estimated at only 46, 50, 27 and 75 lb. respectively. The average outturn is not less now. Sir Thomas Munro in 1806 estimated the average outturn in the Ceded districts at less than 20 lb. per acre. Mr. Rundall, Commercial Resident in the Ceded districts, writing in 1819, states that the native produce of cotton is not more than 30 lb. (clean cotton) per acre.

soil is being exhausted by native practices. He quotes from the report of Mr. Chisholm, the Settlement officer of Bilsapur, the following remarks as to how the outturn is affected by the continuous cropping of irrigated lands. "When fresh soil is broken up for rice cultivation, the ground can never be got into proper order during the first year, and the yield is less than in the old fields. In the second year the outturn rises about one-eighth above that of the old fields and increases gradually year by year until the fifth, when it reaches 50 per cent. above the old fields. It then commences to decline, and in about another five years has subsided to the level of the old fields, and at that level it remains unchanged for ever. Many fields for instance are believed to have been continuously cultivated for 150 years²⁷ and more, and yet they are in no way inferior to land reclaimed from the jungle but 15 years ago." Professor Wallace²⁸ goes on to remark that 5 lb. of nitrogen is required for an acre, combined by electric action. Thunderstorms being common during the south-west monsoon months, India has a natural advantage over the British and American wheat growers, whose supply of nitrogen is, in a great measure, drawn from vegetable accumulations in a virgin soil, which is, in consequence of a system of close cropping, becoming exhausted. More recently, Dr. Voelcker has expressed an opinion to a similar effect. He states: "the possibility of soil exhaustion going on (in India) can only be determined by a careful study of what is removed from the land, and how far this is replaced by the forces of nature and by the artificial nourishment of manuring. I have mentioned the deficiency of nitrogen which I observed in the case of several Indian soils, but it is worthy of note too, how very large a proportion of the crops annually grown, also of the trees and shrubs and even of the weeds, are leguminous in character, and

²⁷ In an inscription (*vide* appendix I-D) recording a grant to a Jain temple at Negapatam by Kulottungachola (A. D. 1084) the produce of certain villages which can now be identified is given. Comparing the present outturn with the rates given in the inscription, it is found that on the whole the produce has increased and not diminished. There is a popular impression in the Godavari district that the construction of anicuts and locks has diminished the quantity of silt deposited on lands under irrigation. I have also heard a story—apocryphal, no doubt, but still significant. It appears that an astute Tanjore Mirassidar paid a handsome bribe to the subordinate officers of the Public Works Department, to be allowed to breach the bank of a river when in full flood and that, though he got no produce from his lands the first year, he made a great profit in subsequent years. This, of course, is a very dangerous way of manuring lands. The inundations of the Nile fertilize the lands subject to them, but they often do as much harm as good.

²⁸ The question is entirely a scientific one and is at present in an experimental stage. Recent investigations, it is stated, with certain kinds of leguminous plants, have shown that they derive their nitrogen from the atmosphere and enrich the soil in which they are grown—*Vide Journal of the Royal Agricultural Society for December 1891.*

may thus, if recent investigations be correct, possibly derive their nitrogen from the atmosphere." Dr. Voelcker has given high praise to the native methods of cultivation which he considers are excellent, the problem of improving native agriculture being a more difficult one than the problem of improving English agriculture. The "garden" cultivation, *i.e.*, cultivation with the aid of wells, presents, in his opinion, "some of the most splendid features of careful and high class cultivation that one can possibly see in any part of the world." "Garden" cultivation has, as already remarked, greatly increased in this Presidency. To take one district, Coimbatore. The number of irrigation wells in good order, which were 22,000 in number in 1801, increased to 28,719 in 1821, to 31,507 in 1852, to 58,385 in 1882, and to 60,283 in 1888-89.²⁹ This means on about 15 per cent. of the area under cultivation, the outturn was quadrupled or even quintupled. It was owing to the existence of these wells that Coimbatore, though one of the driest districts in the Presidency, suffered so little from the famine of 1876-78; since the famine, cultivation by means of wells has been extending in other districts also. Dr. Brandis, who travelled through the several districts of the Presidency in 1880, writes in his report on Forest management, "I was much gratified to see in Bellary, Salem and other districts the large number of new wells made since the famine, and old wells deepened; and it seemed to me that the people fully recognize the value of wells for irrigation. Many of the wells in the dry inland districts are large and beautifully built, 30 feet square and 25 feet deep or more, and such wells cost from Rs. 500 to Rs. 1,000." The Board's report³⁰ on the Revenue Settlement of the Presidency for the year ending 30th June 1890 shows that 3,176 wells were excavated in that year by Government ryots at a cost of Rs. 2,63,677; and of this number, three-fourths were in Salem, Coimbatore and Chingleput. The same report shows that in seven districts, from which alone returns had been received, the number of wells in use for supplementing irrigation from Government works was no less than 48,220, showing beyond doubt that the policy recently adopted by Government of doing away with the last remnant of restrictive regulations calculated to impede the extension of well irrigation used for the purpose of supple-

²⁹ I examined the accounts of 10 villages in the Coimbatore taluk and found that the number of wells had increased from 208 in 1860 to 315 in 1890.

³⁰ Recent official reports show that about 20,000 wells were excavated during the last two years of drought by means of advances, amounting to upwards of 30 lakhs of rupees granted by Government, and it was found on inspection by the Commissioner of Revenue Settlement and Agriculture that the wells were in proper order. The 900 wells constructed in the Ponneri taluk have since been found to be mud wells estimated to last for from 10 to 15 years, but excavated on hard soil.