

CHAPTER VIII.

RAINFALL AND SEASONS.

**RAINFALL.**—Liability to famine. **EARLY SCARCITIES.**—Before the cession—Scarcity of 1802-04—Scarcity of 1805-07—Bad season in 1824. **FAMINE OF 1833.** **FAMINE OF 1854.**—Numbers relieved—Works undertaken—Cost to the State. **FAMINE OF 1866.**—Events preceding it—Beginnings of distress—Works at length opened—A dearth of food—Rain in August—The relief-works carried out—Cost of the famine. **THE GREAT FAMINE OF 1876-78.**—Its severity in Bellary—The beginnings of trouble—September 1876; sudden expansion of distress—October; sudden rise in prices—November; great lack of food—December; famine inevitable—Steps taken and proposed—Deputation of Sir Richard Temple—Some of his suggestions—The action taken—Increasing intensity of the famine—June 1877; the monsoon again fails—July; difficulties further increase—August; the climax reached—September; rain falls—End of the distress—Cost of the famine. **SCARCITY OF 1884-85.** **FAMINE OF 1891-92.**—Cattle mortality heavy—Cost to the State. **FAMINE OF 1896-97.**—Numbers relieved and prices—Mortality among cattle—Private charity and loans by Government—Cost to the State. **SCARCITY OF 1900.** **SUMMARY.** **FLOODS;** the disaster of 1804—Storm of 1817—The Tungabhadra in flood, 1825—Great storm of 1851—Inundation from the Tungabhadra, 1852. **EARTHQUAKE OF 1843.**

STATISTICS of the rainfall at the various recording stations in the district, and for the district as a whole, are given below for the dry weather (January to March), the hot weather (April and May), the south-west monsoon (June to September), the north-east monsoon (October to December) and the whole year. The figures shown are the averages of those recorded between 1902 and the earliest year in which rainfall was systematically registered at each station. Ramandrug was a recording station from 1870 to 1879, and during those years the fall there averaged 39.28 inches, or nearly double the figure for the district as a whole, but the situation of the place is peculiar and it has therefore been omitted in the statistics given—

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Station.	Years recorded.	January to March.	April and May.	June to September.	October to December.	Total.
Yemmigandru ...	1880-1902	0.62	1.80	14.71	4.82	21.95
Adoni ...	1870-1902	0.41	2.18	18.66	4.89	26.14
Añur ...	Do.	0.33	2.29	14.22	5.63	22.37
Siruguppa ...	1880-1902	0.44	2.27	14.51	5.82	23.04
Bellary ...	1870-1902	0.29	2.77	9.98	6.08	19.07
Rayadrug ...	Do.	0.25	2.82	9.48	6.20	18.75
Kampli ...	1880-1902	0.32	2.69	12.06	6.22	21.18
Hoepet ...	1870-1902	0.21	2.85	17.55	6.63	27.14
Hadaḡalli ...	Do.	0.39	3.33	11.60	5.43	20.81
Harpanahalli ...	Do.	0.29	3.75	13.38	6.30	23.72
Kūdhari ...	Do.	0.13	3.44	15.22	6.26	25.05
District Total ...	1870-1902	0.31	2.76	13.82	5.87	22.76

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The average fall is smaller than that in any other district in the Presidency and at Bellary and Rayadrug where, owing to the interposition of the Sandur hills, the south-west monsoon is unusually light, it is only some 19 inches. This is less than in any of the adjoining British taluks, but in two stations in the neighbouring Chitaldrug district of Mysore the fall is even smaller. The district gets but little of the south-west monsoon as the Western Gháts are so close to it, and it lies so far from the east coast that the north-east monsoon has parted with most of its moisture before reaching it. For the district as a whole the heaviest known rain was the 35·62 inches received in 1874, and the lightest the 8·61 inches of 1876, the first year of the great famine: In this latter year the total fall at Alúr was only 5·80 inches. Since 1870 the fall has only twice—in 1874 and 1893—exceeded 30 inches and only ten times been above 25 inches. In 1891, on the other hand, it was only 10·03 inches and in 1884 only 12·28 inches.

The rainfall of Bellary is not only very light, but, as a detailed examination of the statistics for each month would show, it is also capricious and uncertain. Moreover it is usually received in a series of light showers, the effect of which rapidly passes away, instead of in a small number of good downpours which would thoroughly soak the soil and fill the tanks and springs. If the amount received is divided by the number of rainy days the average shower, even in the wetter months, works out to less than half an inch.

Excluding Ramandrug, there are three well-marked zones of rainfall: Ádóni in the east of the district, which gets a moderate supply; Alúr, Bellary and Rayadrug in the centre, where the fall is smaller than in any tract in the Presidency; and the three western taluks which have a slightly heavier, but still a light, rainfall. The average distribution of the supply is very similar throughout the district. From December to March the usual monthly fall is only about one-eighth of an inch. In April and May a few showers occur. In June the south-west monsoon brings up some rain and blows with violence till August. Between June and September, which latter is the wettest month of the year, more than half the annual supply is received. October is the second most rainy month, but by November the north-east monsoon has died away and the fall in that month is small.

Marked deviations from this normal course are usually serious in their effect, even though the total supply is up to the normal. In 1885, the total rainfall was three inches more than the average, but the bulk of it arrived so late in the year that the state of the season was serious enough to necessitate preparations to meet a

scarcity. Want of rain in the months when it is essential to the crops is not compensated for by heavy falls when that time has passed away.

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Possessing, therefore, an exceedingly light and withal uncertain rainfall, and being, as has been seen in previous chapters, a district in which three-fourths of the people are dependent upon pastoral and agricultural pursuits, where the soil is much of it poor, and where irrigation works are few and far between and are many of them dependent upon local rainfall, Bellary is, as a necessary corollary, more than usually liable to disastrous seasons.

Liability to  
famine.

Of the famines and scarcities which overtook it before its cession to the Company there is no exact record. Native historians in those days concerned themselves more with courts and kings than with calamities among the common people. Ferishta mentions two famines in the 15th century which are said to have spread throughout the Deccan, but gives no exact particulars. The second of them must, however, have been excessively severe, for he says that for two years no grain could be sown "and in the third, when the Almighty showered his mercy upon the earth, scarce any farmers were left to cultivate the lands."

EARLY  
SCARCITIES.  
Before the  
cession.

One of Munro's reports<sup>1</sup> makes a passing mention of a scarcity in 1756, and shows that the famine of 1791-92 which was so severe in the Northern Circars (and which is memorable as being the first occasion on which an Indian Government opened relief-works) also seriously affected the Deccan districts. Its intensity was enhanced by the rapacity of the native administration. "Had the officers of Government", says Munro, "lowered the assessment or even let it remain as before, the effects of the famine would probably only have been felt while it lasted, but as they raised it near 50 per cent. wherever there was a crop, this addition to the high price necessarily occasioned by the scarcity rendered grain so dear that very little could be purchased by the lower classes of the inhabitants, and great numbers of them perished in consequence." Harpanahalli taluk was less mercilessly administered than the others and so suffered less.

The first scarcity after the cession began in 1802 and lasted till 1804. Writing to the Board in May 1803 Munro said that "in no one village perhaps of any district (taluks were called "districts" in those days) except Adóni was there what is called

Scarcity of  
1802-04.

<sup>1</sup> Dated 12th August 1801, printed at the Bellary Collectorate Press, 1892.

<sup>2</sup> The price of rice was actually as high as two seers the rupee (Munro's report of 11th January 1805, in Arbutnot's *Life of Munro* ii, 220). This seer was probably the Navadhányam seer of 112 tolas which would make the price equal to one rupee for 2½ of the present seer of 80 tolas.

CHAP. VIII. "an average produce." A year later he wrote again that "the tanks nowhere received any water for the first crop. In only two out of 37 districts did they receive a full supply for the second . . . Great numbers of the cattle employed in agriculture and in the transport of grain have perished . . . All kinds of provisions are from two to three hundred per cent. above the average rate." These high prices were partly due to the heavy exportation of grain which took place to the country across the Tungabhadra, which was equally affected. Munro accordingly suspended all duties upon the importation of food-grains and imposed an *ad valorem* duty of 3 per cent. on all grain sent beyond the river. The scarcity (Munro declined throughout to describe it as a 'famine') ended with the great storm of October 1804 which is referred to later on in this chapter.

Scarcity of  
1805-07.

In the next year the famine which affected the districts adjoining Madras City spread to Bellary. Distress continued until 1807. Munro's report upon the situation<sup>1</sup> deprecated interference with the grain trade and suggested the remission of revenue as one of the best means of alleviating distress, both of which principles have been adhered to in all subsequent famines. In the Ceded districts the season was in Munro's opinion "beyond all comparison worse than any that has ever been known," for though prices were not so high as they had been in 1804 there was much less crop than in that year. "Not a tank in the country had its due complement of water and many of them remained quite empty." Apparently, however, only Rs. 20,000 were spent in relief-works.

Bad season  
in 1824.

In 1824 relief-works were again necessary in the district, but it was less severely affected than several others.

FAMINE OF  
1833.

In 1833 occurred the "Guntúr famine", so called because of its severity in the old Guntúr district, where out of a population of 500,000 as many as 150,000 persons were estimated to have perished from want. Mr. F. W. Robertson, the then Collector, described the season within his charge in the precise words applied by Munro to the state of affairs 26 years before, declaring it to be "beyond all comparison worse than any that has ever been known." The September and October rains failed, and consequently most of the black cotton-soil was left untilled. Moreover the people across the Tungabhadra were in even greater straits and their heavy purchases of grain drove up prices with appalling rapidity, cholam, which in September had sold at from 70 to 75 seers the rupee, rising in a few days to 23 seers. The Collector was authorised to afford gratuitous relief to those in absolute

<sup>1</sup> Dated 9th February 1807 (Arbuthnot's *Life* ii, 221).

want, to open relief-works and to try and encourage the importation of grain, but what steps were actually taken nowhere now appears. Records show, however, that in six months 12,000 people died of cholera in the district and that the loss of revenue there was  $3\frac{1}{2}$  lakhs of rupees.

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FAMINE OF  
1833.

The next famine in the Presidency was in 1854 and it was almost entirely confined to Bellary and Anantapur.

Bellary had hardly recovered from the damage to its irrigation works caused by the great storm of May 1851 referred to later in this chapter, and in 1852 and the early part of 1853 the standing crops—especially the cholam, the staple food of the people—had been extensively injured by unseasonable rain. The rainfall in June and July 1853, on the other hand, was scanty, and the north-east monsoon completely failed. The average fall in the district during that year was only  $9\frac{1}{2}$  inches and in certain of the taluks (Bellary Adóni and Rayadrag for example) it averaged only  $6\frac{1}{2}$  inches and was in some cases as low as  $3\frac{1}{2}$  inches. The harvest was consequently a miserable failure and prices began to rise.

FAMINE OF  
1854.

By January 1854 cholam was selling at 27 seers the rupee, against an average in the ten years 1841-51 of about 58 seers, and by June it had risen to 21 seers per rupee. It continued at this figure until September, and in the northern taluks, which were the worst affected, it was even as high as 14 seers. The highest price touched in 1833 had been Rs. 200 per garce and even this had only lasted for a short period, the average for the whole year being Rs. 140. But on the present occasion the price in the northern taluks averaged Rs. 218 per garce steadily from January to September, and from June to September was even as high as from Rs. 240 to Rs. 252. In October ten inches of rain fell, prices eased and the famine was over.

The number of people on relief-works in the Bellary and Anantapur districts rose from 9,000 in January 1854 to 97,000 in July and was at one time as high as 100,600, or eight per cent. of the entire population. Figures for the first week in each month

Numbers  
relieved.

January	..	8,766
February	...	16,017
March	...	22,279
April	...	48,299
May	...	71,862
June	...	93,092
July	...	97,554
August	...	77,768
September	...	65,869

from January to September are given in the margin. In Bellary taluk the percentage of the people on relief was as high as 16, and in Adóni 17. These figures were, however, doubtless enhanced by persons from the Nizam's Dominions, who flocked across the river in large numbers. Mortality among the

‘ It is not now possible to give separate statistics for this famine for each of them.

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FAMINE OF  
1854.

people is not referred to in the reports and was apparently slight, but the Collector (Mr. Pelly) estimated that in the eastern taluks four-fifths of the cattle had perished and the villages were said to be strewn with their bones.

Works  
undertaken.

The relief-works consisted almost entirely of earth-work on new roads and they were chiefly controlled by seven military officers working under the "Civil Engineer." Some Rs. 10,000 were spent in cleaning out and deepening the Fort ditch in Bellary. Piece-work rates were nowhere tried. The wages given were at first As. 2 for men and As. 1-6 for women and children, but in July they were reduced to As. 1-3 for men, 1 anna for women and 8 pies for children. The majority of the people on the works were farm-labourers, ordinary coolies and weavers. In the two districts 284 miles of earth-work for roads were completed and another 88 miles partly finished and the expenditure upon works to the end of September was Rs. 12½ lakhs. It was, however, calculated that the work done was only worth about a third of this sum.

Cost to the  
State.

Altogether 16 lakhs were spent on the famine, and if to this sum is added the actual loss of revenue in 1854, 5½ lakhs, and a further prospective loss of four lakhs, the visitation cost the State 25½ lakhs in the two districts. The cost to the people themselves was, of course, far heavier. Writing to the Secretary of State after the famine, the Madras Government put the losses due to withered crops, land left unsown and diminished cultivation at about 33 lakhs, and those caused by the death of cattle at 13½ lakhs, and concluded its calculations with the remark that "the result is a loss in this one Province (*i.e.* the Ceded districts) of nearly 70 lakhs of rupees in this single disastrous season."<sup>1</sup>

FAMINE OF  
1866.

In 1866 famine again visited the Presidency and afflicted Bellary (especially the Bellary, Rayadrug and Kūdligi taluks) more severely than any other district except perhaps Ganjām.

Events  
preceding it.

Events in the district in the years immediately preceding 1866 had in part prepared the way for disaster. The outbreak of the American War in April 1861 had caused a cotton famine in Lancashire and the consequent run upon Indian cotton had been so great that the price rose from about Rs. 1-4 per maund of 25 lbs. in 1861 to Rs. 3 in 1862, Rs. 5 in 1863 and even higher figures at the end of 1864. The ryots, speculating on a continuation of those extravagant rates, raised cotton wherever it would grow until the area under that crop in Bellary and Anantapur was

<sup>1</sup> For further particulars see Dalyell's *Memorandum on the Famine of 1866* and the report of the Famine Commission of 1880, Part III, pp. 26-7.

more than double the normal. The crop was wonderfully profitable (it has been calculated that the people made  $1\frac{1}{2}$  millions sterling out of it in the three years) but its cultivation at the expense of food-grains in a district cut off from railway communication with outside areas proved a dangerous undertaking. Even while the seasons continued good this procedure raised prices. In 1863-64 the season was bad and they went up still further.

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1866.

In 1865 the American War ended and cotton went down with a run to Rs. 3-12 a maund. Also the season was again unfavourable. Prices went up to 11 seers of rice and 14 seers of cholam per rupee, which was as high as they had ever been in the 1854 famine. Rain continued to hold off, and in Bellary itself "not a drop fell between 7th November 1865 and 1st May 1866."

In March 1866 the Collector<sup>1</sup> asked that relief-works might be started, but received no definite orders. Matters were becoming very serious. According to one of the official reports "the poorer ryots and hired labourers, and especially the Bédar and other low castes, were in a pitiful condition, supporting life upon edible leaves and nuts, pounded tamarind stones and the pulp of the aloe." The people began to wander to Kurnool, Mysore and the Nizam's country. "Numbers perished by the way during these migrations and it was not unusual to find lying on the roads and streets the dead bodies of these famished way-farers."

Beginnings  
of distress.

The one bright spot in the picture was the readiness with which private charity advanced to alleviate the wretchedness of the poorer classes. Some of the richer ryots fed considerable numbers daily and among the names of those whose liberality has been handed down are Budda Ranga Reddi, a landholder of Uyyálaváda in Kurnool, and Sakri Karadappa, a cotton-merchant of Bellary. Between 5,000 and 7,000 people, chiefly infirm men and women with young children, were relieved monthly in Bellary throughout the famine from private native charity, and other similar relief was organised in Ádóni, Hospet, Kampli and Kúdligi.

In July the Collector at length made arrangements with the Superintending Engineer to open relief-works from the usual Public Works grant and obtained sanction for an additional Rs. 30,000 for improvements to roads and the cleaning of wells. In the Anantapur portion of the district it was arranged to go on with the extension towards Guntakal of the North-west line of the Madras Railway, the rail-head of which was then at Muddanúra in Cuddapah district.

Works at  
length  
opened.

<sup>1</sup> Arthur Hathaway. He died while on tour near Ettinahatti in the month following and is buried at Ramandrug. He was temporarily succeeded by W. S. Lilly, the Head Assistant Collector, who afterwards (he retired on an invalid pension in 1872) became the well-known author of "On Shibboleths" and other works.

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FAMINE OF  
1866A dearth of  
food.

By August things were at their worst. The district was cut off from grain supplies from the north by (a strange irony!) floods in the Tungabhadra caused by heavy rain in Mysore, and in places there was an absolute dearth of food. During the latter half of the month second sort rice was four seers the rupee and cholam five seers. The Collector telegraphed to Government asking that Rs. 10,000 worth of the cheapest grain in Madras might be sent him instantly. Government made immediate arrangements with the Commissary-General to despatch the grain, but the difficulty was to get it to Bellary. The railway had just been opened as far as Muddanúru, but the only means of getting the grain from thence to Bellary was by country cart, which "involved 100 miles of transit of a fodderless region, certain deterioration, if not death, of the bullocks and in many cases of the drivers by cholera." The rate of cart-hire prevailing was Rs. 4 per bandy per mile, but even for this extravagant figure it was quite impossible to get sufficient carriage at Muddanúru and the grain had eventually to be sent to Bellary from Bangalore, 180 miles by road, and took altogether nearly two months to reach its destination.

Meanwhile a few more works had been opened, a sum of Rs. 12,000 was collected locally for gratuitous relief and the Famine Committee in Madras (the first instance of a private relief fund in the history of Indian famines) sent Rs. 14,000 more for the same purpose.

Rain in  
August.

Towards the end of August rain fell, and in the first part of September there were good showers in the western taluks and prospects brightened. Prices, however, remained high, the necessity for relief continued, and the Collector obtained another  $1\frac{1}{4}$  lakhs of rupees for works. The rain continued through September and October, but the numbers on relief, instead of declining, increased and continued to increase until January 1867, after which they began to fall. It was not, however, until June in that year that the works were finally closed.

The relief-  
works carried  
out.

Piece-rates were again left untried on these works. The wages were at first 3, 2 and  $1\frac{1}{2}$  annas for men, women and children, respectively, but in December they were lowered to 2,  $1\frac{1}{2}$  and one anna, respectively. Altogether 261 miles of roads were newly constructed in Bellary and Anantapur<sup>1</sup> and another 216 miles of existing roads were improved. The only work of interest done in Bellary town was the execution of part of Capt. Fischer's scheme for the improvement of its water-supply, referred to in the account of the place in Chapter XV.

<sup>1</sup> Separate statistics for the two districts are not available.



The figures in the margin show the average daily number of

Months.	On gratuitous relief.	On relief-works.
1866.		
July ... ..	3,613	...
August ... ..	15,955	3,090
September ... ..	28,693	8,263
October ... ..	32,310	9,500
November ... ..	19,938	11,616
December ... ..	15,590	17,482
1867		
January ... ..	10,158	19,421
February ... ..	6,743	18,109
March ... ..	5,019	15,310
April ... ..	3,301	7,467
May ... ..	3,113	4,378

persons relieved throughout the famine in the two districts. The gratuitous relief cost about one lakh, but of this sum the Madras Famine Committee contributed Rs. 55,000 and nearly all the remainder was locally subscribed. The relief-works cost the State some 4½ lakhs and in the two years ending with 1866-67 remissions amounting to 2½ lakhs more than the normal were granted, so that the expenditure by the

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1866.  
Cost of the  
famine.

Government in the two districts was some seven lakhs of rupees. The loss to the people will never be known. The death-rate was 4 per cent. against 1.5 per cent. after the famine, but registration of deaths had only begun in the Presidency in June 1865 and the figures were probably worth little. There was, moreover, considerable mortality from cholera (in many villages the panic was so great that the corpses remained unburied) and it is not safe to assume that any increase in the deaths was due to starvation. The loss in cattle and crops was, however, undoubtedly enormous and the mortality among the former was estimated at 35,000 head worth Rs. 9½ lakhs.

It was the opinion of the Hon'ble Mr. Ellis, who, under the orders of Government, visited the district in October 1866, and of others also, that the gravity of affairs was not realised early enough and that if the action which was at length taken in August and September had been begun in May and June the people would have been saved a great deal of avoidable distress.

Ten years later came the worst affliction that the district or the Presidency has ever known, the Great Famine of 1876-78, the visitation which lasted 22 months, affected fourteen of the 21 districts of the Presidency (eight of them severely), is calculated to have caused the death of 3½ million people, and to have cost the State Rs. 630 lakhs in direct expenditure besides another 191 lakhs in loss of revenue.

THE GREAT  
FAMINE OF  
1876-78.

Excepting only Kurnool, Bellary suffered more terribly in this visitation than any other district in the Presidency.

Its severity  
in Bellary.

CHAP. VIII. It has been calculated<sup>1</sup> that in those two years more than  
 THE GREAT one-fifth of its inhabitants (330,000 souls) died of starvation  
 FAMINE OF or disease, and that, if the effects of the check upon reproduction  
 1876-78. which resulted are also included, the population at the census of  
 1881 was no less than one-fourth smaller than under normal cir-  
 cumstances it would have been. In Ádóni and Alúr taluks the  
 results were even more disastrous. At the census of 1881 their  
 population was one-third less than it had been at the census of  
 1871, ten years before. At the census of 1891, fourteen years after  
 the famine, the population of the district as a whole continued to  
 be smaller than it had been in 1871, and even by 1901 the total  
 increase in the thirty years since 1871 had amounted to only 4 per  
 cent. The direct outlay by the State upon the taluks which now  
 make up the district (excluding altogether the remissions of land  
 revenue which were necessary, the direct losses incurred by the  
 Salt and Abkári and other departments and the decline in cultiva-  
 tion and revenue under all heads which followed) was at least 88  
 lakhs and the losses to the people were incalculable.

The begin-  
 nings of  
 trouble.

The beginnings of this disaster date from 1874, in which year  
 heavy rains destroyed part of the crops. In 1875 the south-  
 west monsoon was scanty and late, prices began to rise and  
 remissions of revenue were necessary. The north-east monsoon of  
 that year was not sufficiently favourable to drive prices down, but,  
 though preparations for the worst were made, it was confidently  
 hoped that the south-west monsoon of 1876 would be a success and  
 remove all anxiety. But the monsoon months passed by one after  
 the other without bringing any sufficient rain and in Harpanahalli,  
 Hadagalli and Kúdligi the price of cholam rose until it was 16 seers  
 the rupee, or nearly double the normal rate, and relief became  
 necessary. August and September similarly passed without bring-  
 ing any good rain and in the western taluks goldsmiths and even  
 a village reddy and all his family were found on the relief-works,  
 though the wages were only 1½ annas for a man and one anna  
 for a woman—much lower than they had been in previous famines.

September  
 1876; sudden  
 expansion of  
 distress.

The distress then began to spread suddenly and with great  
 rapidity to the rest of the district. On the 22nd September the  
 Collector (Mr. J. H. Master) reported that it was universal  
 throughout his charge and on the 28th that it was increasing daily  
 in nearly every taluk. Government raised to Rs. 75,000 the  
 grants for works which had already been made to him and deputed  
 Mr. G. Thornhill, Senior Member of the Board, to travel through

<sup>1</sup> Paragraph 110 of the report on the Madras Census of 1881. The figures  
 include the taluks which now make up the Arantapur district,

the Ceded districts to see how matters lay. He corroborated the Collector's accounts of the season, but hoped that if only the coming north-east monsoon was a success the shadow would be removed.

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FAMINE OF  
1876-78.

Prices, however, suddenly went up with a bound. On the 12th October, Mr. Master telegraphed that cholam had suddenly risen to 9 seers the rupee and rice to seven, and that the people were everywhere crowding to the works. By the 19th prices had gone up still further and in Hospet rice was  $5\frac{1}{2}$  seers the rupee. By the end of the month the numbers on relief had risen to 60,000, 28,000 of whom were on works in Bellary town. Tahsildars were relieved of their magisterial work by the appointment of sub-magistrates; Mr. (now Sir Frederick) Price was made additional Sub-Collector to superintend the works in Bellary town; the allotments for works were increased to Rs. 2,19,000; the rates of wages on them were enhanced to meet the rise in prices; and, in view of the great difficulty of finding suitable relief-works in a district in which there were so few tanks and channels, the Government of India were asked to sanction the undertaking of the earth-work for the extension of the railway from Bellary to Gadag in Bombay. This last request was refused.

October;  
sudden rise  
in prices.

During November Mr. Thornhill again visited the district. Grain was pouring into Bellary at the rate of ten special trains daily, but the chief result of this was that the people were flocking into the town works because grain was cheaper there than outside, and more of it could therefore be purchased for the relief-wage. By the middle of November the numbers on these works had risen to 54,000, Mr. Price was given Mr. A. P. Agar of the Police department to assist him, and, to check the influx of relief-workers, arrangements were started for paying wages elsewhere in grain instead of in money and endeavours were made to induce merchants to form grain-caravans to supply outlying markets.

November;  
great lack  
of food.

All through November rain held off and the numbers on works and gratuitous relief (though this latter was chiefly confined to the three westernmost taluks) continued to rise, and eventually the allotments were raised by another three lakhs.

By the end of November all hopes of a favourable monsoon were dead and the district staff settled down to fight the famine which was now inevitable. Two additional Deputy Collectors and two other officers were sent to help. The extraordinary scarcity of grain continued. The railway was hardly able to cope with the demand and orders had to be issued that the food traffic should have precedence of all other. Grain depôts were established in

December;  
famine  
inevitable.

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FAMINE OF  
1876-78.

the different taluks, grain being procured (where local supplies failed) from Madras<sup>1</sup> through Messrs. Arbuthnot & Co., and Major F. J. Hicks was appointed Grain Transport Agent for Bellary and other districts to arrange for the prompt carting of this food to the places where it was most urgently wanted.

The numbers on relief went up by leaps and bounds. By the 1st December they had amounted to 100,000, and by the end of the month this figure had more than doubled.

Steps taken  
and proposed.

Government ordered (for the first time in the history of Madras famines) that a proper system of task-work should be put in force and suggested moving some of the workers across to Nellore to work on the Buckingham Canal. This plan, it may be stated at once, subsequently came hopelessly to grief, only 12,000 persons in the two districts of Bellary and Anantapur being induced to travel so far. Mr. Thornhill suggested beginning the canal from the Vallabhápúram anicut to Bellary which (under the name of the High Level Line of the Upper Bellary Project) formed one of the items of work which the Madras Irrigation Company was contemplating, and also a railway from Adóni to Kurnool. But the Government of India set its face sternly against all such large schemes and ordered that no work which was to cost more than Rs. 30,000 should be put in hand without their sanction. One result of this was that all the enormous expenditure which was eventually incurred in the district was distributed among improvements to small tanks and the making and repair of roads and (unless it be the Bellary-Hubli railway, work on which was eventually permitted) it is not now possible to point to any notable work as the outcome of the Great Famine. In Bellary town almost the only permanent improvement carried out was the deepening of a part of the Mainwaring tank. Mr. Thornhill's proposal to pay advances to blanket-weavers to keep them engaged at their proper occupation and off the works was also negatived at this time, though subsequently sanctioned, but endeavours were made to stimulate the local demand for labour by encouraging applications for advances under the Land Improvement Loans Act.

Deputation  
of Sir Richard  
Temple.

At the end of 1876 the Governor of Madras (the Duke of Buckingham and Chandos) attended the Imperial Assemblage at Delhi at which the assumption by Queen Victoria of the title of

<sup>1</sup> The imports into Madras for the various affected districts were enormous. "The beach", wrote an eye-witness, "is one mass of rice bags and coolies. The rice bags are white, the coolies are black, and viewed from a height the scene reminds one of a colony of ants carrying their eggs about."

Empress of India was formally proclaimed, and while there he was consulted by the Viceroy regarding the policy to be followed in Madras in regard to the famine. One result of the deliberations was the discontinuance of the purchase of grain through Messrs. Arbuthnot and the abolition of grain wages except where no grain was purchaseable on the spot. Another was the deputation of Sir Richard Temple, who had had famine experience in Bengal in 1874, to the Madras Presidency.

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THE GREAT  
FAMINE OF  
1876-78.

Of the hundred and odd minutes and memoranda which Sir Richard wrote in the three and a half months during which he stayed in this Presidency those which most directly affected the policy in Bellary suggested that further stringency should be used in admitting persons to works, admissions being allowed only on the certificate of an officer not below the rank of Deputy Tahsildar, and workers not in danger of starvation being turned away; that the existing wages should be reduced by one-fourth all round; that the works should be limited to certain lines of road already in hand and some 150 large irrigation works each capable of employing 500 persons; that the Bellary-Hubli railway should be begun; that officers of the army should be engaged to assist the civil staff in organising relief and that a special European officer should be deputed to inspect the relief operations in the western taluks; that advances should be made to weavers to enable them to work at their trade; and that special steps should be taken to care for children and the aged and infirm.

Some of his  
suggestions.

In accordance with his suggestions, wages on works were lowered between the 15th and 20th February to the following rates:—

The action  
taken.

For a man,	the value of 1 lb. of grain	+ 1 anna.
„ a woman,	do.	+ $\frac{1}{2}$ anna.
„ a child,	do.	+ $\frac{1}{2}$ anna.

On works not under D.P.W. supervision the above additions in money were reduced by one half. The Government of India in February 1877 moreover sanctioned the beginning of the Bellary-Hubli railway; three military officers, Colonel Howey, Captain W. Hamilton and Lieutenant Wilson—and later Lieutenant J. Haddock and three Bengal Civilians, Messrs. W. A. Howe, H. M. Kisch and W. B. Oldham—were deputed to the district; a special officer was sent to Adóni, where weavers were numerous, to superintend the grant of advances to them; and relief-camps for the helpless were extended, that in Bellary town being supervised by a local committee of which M.R.Ry. Sabhápati Mudaliyár and Mr. Harvey were prominent members.

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THE GREAT  
FAMINE OF  
1876-78.

Increasing  
intensity  
of the  
famine.

The gradually increasing intensity of the famine from this time forth is graphically shown in the subjoined statement<sup>1</sup> giving the numbers on works and gratuitous relief and the prices of the staple food-grains in each month from December 1876 to September 1878:—

Month and year.	Average number of people relieved during each month of the famine of 1876-78.			Total per cent. of population in 1871.	Average price in scers per rupee of—	
	On works.	Gratuitously.	Total.		Cholam.	Rice (2nd sort).
December 1876	184,505	8,473	192,978	21.17	7.4	7.2
1877.						
January	217,986	8,979	226,965	24.80	7.7	7.2
February	226,106	7,916	234,022	25.67	8.1	7.5
March	168,261	22,691	190,952	20.94	8.8	7.7
April	168,697	53,813	217,510	23.86	8.3	8.7
May	181,652	74,578	256,230	28.10	7.5	7.2
June	213,285	106,948	320,233	35.12	6.5	6.5
July	231,196	114,707	345,903	37.94	5.8	5.3
August	324,506	140,408	464,914	50.99	5.6	5.3
September	106,236	179,955	286,191	31.39	6.1	5.5
October	56,122	177,498	233,620	25.62	8.7	6.6
November	20,904	88,530	109,434	12.00	11.0	8.2
December	6,631	20,465	27,096	2.97	11.4	7.7
1878.						
January	3,395	6,381	9,776	1.07	11.4	8.2
February	3,184	4,813	7,997	0.88	11.2	8.0
March	4,361	3,767	8,128	0.89	10.8	7.6
April	4,207	3,720	7,927	0.87	10.7	7.5
May	7,369	6,016	13,385	1.47	9.9	7.5
June	11,405	7,479	18,884	2.07	8.5	7.5
July	17,071	7,721	24,792	2.72	8.7	7.4
August	20,529	6,697	27,226	2.99	9.2	7.8
September	16,855	7,352	24,207	2.65	10.0	8.1
Average over 22 months.	99,521	48,132	147,653	16.19	8.8	7.3

As the months passed by, new difficulties continually arose. Cattle for grain transport became scarcer and scarcer and, in the absence of fodder, endeavours were made to keep them alive by feeding them partly on prickly-pear from which the thorns had been picked out; the works in the district were flooded with immigrants from Mysore and the Nizam's country; cholera raged at several of them, the road at Chinnatumbalam, for example, having on one occasion "almost the appearance of a battle-field, its sides being strewn with the dead and dying"; house-to-house visitations were found necessary to prevent people starving in their villages; caste prejudices with regard to cooking had to be cou-

<sup>1</sup> Taken from the *Statistical Atlas*, p. 140.

sidered in the relief-camps or the food was refused; cloths had to be provided for the large numbers who came nearly naked to the works; and the desertion of wives by their husbands, and children by their parents, had to be checked. Sir Richard's rule requiring the dismissal of relief-workers who were not in danger of starvation was found to result in their rapid deterioration in health and speedy qualification for re-admission, and a keen controversy began between him and Dr. Cornish, the Madras Sanitary Commissioner, regarding the adequacy of the reduced wages to support life, which after much discussion ended in their partial enhancement.

As the time approached when the south-west monsoon of 1877 might be expected, hope began to revive. In the first two weeks of June good rain (the first for seven months) fell in most of the taluks and though prices were higher than ever (probably owing to the demand for seed-grain) it was thought that the beginning of the end had come at last. But once more disappointment followed. In the last part of the month the rains held off everywhere except in Harpanahalli taluk and the numbers on relief went up until they exceeded all previous figures.

July went by without sufficient rain and the intensity of the distress still further deepened. Parents were reported to have sold their children for food; people flocked across the Tungabhadra to the Adóni works at the rate of 1,000 a day, in spite of all efforts to discourage them; in some of the camps the Superintendents had the greatest difficulty in procuring grain of any kind; prices went up in places to  $4\frac{1}{2}$  seers the rupee for both rice and cholam; and owing to the impossibility of getting any green food or any good water sickness spread through many of the relief-works. In Hadagalli and Harpanahalli there had been some rain and some little harvest was expected but even there the men on the works were rapidly declining in physique and some were reported to have sold their huts, their blankets and everything else they owned to get food, and to be left with hunger as their sole possession.

In August the Viceroy came to the Madras Presidency and with the Governor visited Bellary. A result of his tour was that from thenceforth the Duke controlled all famine matters himself, without the intervention of the usual channels of communication. A definite policy was also laid down regarding the manner in which the different classes of the needy should be treated and the system under which works should be organised and controlled. August was the worst of all the terrible months of the famine. The numbers of those on gratuitous relief in Bellary district ran up to 140,000 and of those on works to 325,000, the total of these

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1876-78.

June 1877;  
the monsoon  
again fails.

July;  
difficulties  
further  
increase.

August;  
the climax  
reached.

CHAP. VIII. two amounting to no less than one-half of the whole population according to the census of 1871.

THE GREAT  
FAMINE OF  
1876-78.

September;  
rain falls.

It was the darkest hour before the dawn, for in the next month heavy rain was at last and at length received. In the district as a whole  $6\frac{3}{4}$  inches fell in September, and in October another eight inches. The streams were in flood, the works were damaged by the rain, and in one of the camps a violent hurricane blew down the sheds and killed some of their inmates. The crisis was past, but though the numbers on works at once declined, prices continued to be high and the totals of those on gratuitous relief reached in these two months the highest figures which had ever been touched. It was not until November that prices eased to any considerable extent, and from thenceforth the numbers on relief rapidly declined.

End of the  
distress.

At the end of January 1878 most of the famine works in the district were closed, but some of them continued open throughout the whole of that year and it was not until December that, with the exception of the Bellary-Hubli railway, they were finally stopped.

Cost of the  
famine.

As has been already stated, the famine is calculated to have cost the lives of one-fifth of the population of the district and at least 88 lakhs of direct expenditure by the State. In 1885 Mr. Galton, the then Collector of the district, furnished Government with the details of this outlay which are exhibited in the following statement<sup>1</sup> :—

Taluk.	Amount expended from the commencement of distress up to 28th December 1878 on—					Establishment (including charges in Anantapur district).	Total.
	Relief works.	Gratuitous relief.	Land improvement advances.	Advances to weavers.	Advances for seed-grain.		
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Adoni ... ..	19,06,447	4,25,780	27,325	1,00,407	13,952	...	...
Alur ... ..	7,80,500	1,07,375	2,500	...	...	...	...
Bellary ... ..	16,33,822	3,20,010	45,200	1,711	21,038	...	...
Hadagalli ... ..	5,00,989	1,55,701	31,471	3,089	14,012	...	...
Harpnaballi ... ..	2,82,304	2,16,343	02,447	...	34,334	...	...
Hospet ... ..	6,10,582	1,28,815	29,286	17,211	6,163	...	...
Kudligi ... ..	4,14,226	2,82,338	41,765	15,189	121	...	...
Rayadurg ... ..	5,49,963	1,77,819	23,630	1,337	5,000	...	...
Total ... ..	66,83,783	18,54,231	2,53,714	1,98,914	94,620	5,70,828	96,50,060

The cost of establishment in Bellary and Anantapur cannot now be separately ascertained, but if half the total is debited to Bellary and the various advances are neglected the total expenditure will be seen to exceed 88 lakhs.

<sup>1</sup> See his letter in G.O., No. 1327, Rev., dated 30th November 1885.



Mr. Galton added that apart from the expenditure *directly* incurred during the famine on relief the land revenue in the eight years including and following the famine had been 32 lakhs less than in the eight years preceding it, and had remained stationary instead of, as before, progressive. Under Abkári there was also a loss of  $4\frac{1}{2}$  lakhs by re-sale of farms and remissions, and other branches of revenue must have suffered in the same way. No exact particulars are now available, but it will clearly be within the mark to say that in this district alone the famine cost the State Rs. 125 lakhs, while the cost to the people was of course incalculably heavier.

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THE GREAT  
FAMINE OF  
1876-78.  
—

The famine of 1876-78 put all subsequent, as it did all previous, afflictions in the shade, but in the quarter of a century which has since elapsed two more scarcities and two more famines have visited this distressful district.

SCARCITY OF  
1884-85.

The scarcity of 1884-85 was the first of these. Three out of the four preceding seasons had been unfavourable and in 1884, owing to deficient rain, the *mungári* harvest on the red soils had been small and the *hingári* crops in the black soil taluks had failed almost everywhere. From March 1885 to June of the same year a considerable number of people were employed on the earth-work of the Guntakal-Hindupur railway. The total amount spent on this up to September 1885, when heavy rain removed all further anxiety, was Rs. 2·80 lakhs, and remissions amounting to  $6\frac{1}{2}$  lakhs had to be granted.

In 1891-92 famine again visited the same districts which had suffered most in 1877, and, as before, Bellary was more severely attacked than any area except Kurnool. Judged by the numbers on relief, the distress was worst in Alúr taluk, bad in Adóni and Bellary, less severe in Hospet and Rayadrug and hardly felt in the three south-western taluks.

FAMINE OF  
1891-92.

The north-east monsoon of 1890 had failed in most of the southern and central districts of the Presidency, but in Bellary the rainfall was sufficient and, thinking that they were safe, the ryots exported large quantities of grain to their afflicted neighbours. But in 1891 they themselves suffered from want of rain—both monsoons failing and the fall from April to October being only 9·39 inches against an average of twenty-one. The extent cultivated in 1891-92 with dry crops was between one-fifth and one-fourth less than the average and on nearly one-fifth of this reduced area the crops withered totally. Prices consequently rose almost as suddenly as they had done in 1876, and by December 1891 cholam was selling in Adóni, Alúr, Bellary and Rayadrug at between 13 and 14 seers the rupee, or more than double the average rates. Part of this rapid rise is thought to have been due to the superstitious

CHAP. VIII. Famine of 1891-92. terror caused in the minds of the people by the remembrance that the coming Hindu cyclic year bore the ominous name of Nandana, which ever since the famine of 1832-33 had been a household word throughout the Ceded districts. Relief-works were started in December 1891. The course of events thereafter is shown by the figures below :—

Month and year.	Average number of people relieved during each month of the famine of 1891-92.			Total per cent. of population in 1891.	Average price in seers per rupee of—	
	On works.	Gratuitously.	Total.		Cholam.	Rice (2nd sort).
1891.						
December... ..	1,839	...	1,839	0.30	14.2	8.1
1892.						
January ... ..	5,586	...	5,586	0.90	14.4	8.7
February ... ..	6,035	...	6,035	0.97	15.3	9.0
March ... ..	7,297	37	7,334	1.18	15.2	9.1
April ... ..	9,138	29	9,167	1.48	15.3	8.9
May ... ..	12,806	29	12,835	2.07	15.3	9.0
June ... ..	18,010	42	18,052	2.91	14.9	9.0
July ... ..	10,730	45	10,775	1.74	16.3	9.3
August ... ..	5,429	31	5,460	0.88	19.2	9.8
September ... ..	601	...	601	0.10	22.9	11.0
Average over 10 months. }	7,747	21	7,768	1.25	16.3	9.2

Heavy rain fell in June and more in the three months following and thereafter all anxiety rapidly passed away.

Cattle mortality heavy.

Apparently little or no human mortality occurred, except from cholera, but the loss of cattle was very great. In some taluks one-fourth and even one-third of the breeding and young stock died and there was a general loss of 8 per cent. of the tilling cattle. The grass on the Sandur hills saved many lives and was carted to the four western taluks and Bellary and Rayadrug in large quantities and to a less extent to Alúr and Ádóni. Great efforts were made to induce the ryots to try prickly-pear as fodder, but they usually declared that it gave the cattle liver-complaint.

Cost to the State.

	RS.
* Roads ... ..	1,66,596
Irrigation works ... ..	19,457
Establishment ... ..	15,497
Total ... ..	2,01,550

The total cost of the relief-works was some two lakhs\*; gratuitous relief came to only Rs. 800. Remissions, however, amounted to Rs. 6,92,000. The total cost to the State was thus about nine lakhs.

Between October 1891 and September 1892, 2½ lakhs were disbursed as advances under the Land Improvement Loans Act and Rs. 44,000 for the purchase of fodder, cattle and seed-grain.

In 1896 and 1897 yet another famine visited Bellary. Distress was general throughout a great part of India, but in Madras the only districts attacked were those in the Northern Circars and the Deccan. Among these latter the area affected in Bellary was proportionately larger than in any of the others except Anantapur and amounted to over two-thirds of its total extent, including all parts of it except the Rayadrug and Harpanahalli taluks and part of Hadagalli. It was the same old story of deficient rains. The south-west monsoon of 1896 failed, and so did the north-east monsoon of the same year and the south-west monsoon of the next.

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FAMINE OF  
1896-97.

The dry land sowings in 1896-97 were 200,000 acres below the average, and of the area of crops harvested up to the end of November 1896 over a third gave no outturn at all, more than another third only a quarter crop, and nearly another fourth only a half crop. The harvest in the next four months was even worse, 70 per cent. of the area reaped giving either no crop at all or less than a quarter of the normal.

The price of cholam rose sharply in October 1896 and was above the scarcity rate in November. Relief became necessary in the latter month and the numbers on the works grew steadily larger until September 1897, when good rain at last arrived.

The average numbers on relief in the district and the average price of cholam in each month up to November 1897 are shown below :—

Numbers relieved and prices.

Month and year.	Average number of people relieved during each month of the famine of 1896-97.				Total per cent. of the population in 1891.	Average price in seers per rupee of cholam.
	On relief works.	Weavers.	On gratuitous relief.	Total.		
1896.						
November ...	10,603	133	737	11,473	1.30	12.1
December ...	13,838	200	454	14,492	1.65	13.5
1897.						
January ...	16,881	123	1,298	18,302	2.08	14.3
February ...	29,918	129	2,157	32,204	3.68	13.4
March ...	35,386	182	2,001	40,519	4.60	12.8
April ...	54,171	188	3,992	58,351	6.62	12.0
May ...	80,542	575	8,644	90,761	10.30	12.0
June ...	97,165	687	20,266	118,118	13.41	11.5
July ...	134,540	1,405	26,138	162,083	18.48	9.7
August ...	148,730	4,201	26,868	179,799	20.41	9.2
September ...	90,101	2,220	22,605	114,926	13.05	11.4
October ...	17,884	578	10,533	28,995	3.29	14.0
November ...	...	...	709	709	0.08	15.3
Average over 13 months.	56,366	813	9,800	66,979	7.60	12.4

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FAMINE OF  
1896-97.

The numbers on relief were, as usual, enhanced by immigrants from Haidarabad, and it was calculated that at one time these outsiders amounted to 10,000 persons. The previous normal price of cholam had been 30 seers the rupee and it will be seen that in some months it was 300 per cent. dearer than the normal.

Weavers were relieved by making them advances of material and taking over the fabrics woven therefrom at rates which left the workers sufficient for their maintenance for the time spent in weaving. A Deputy Tahsildar was appointed to superintend operations and a special Deputy Collector was in charge of this form of relief in the four Deccan districts.

Mortality  
among cattle.

Human mortality from starvation was apparently unknown, but the cattle as usual suffered severely. Though in May 1897 all the forests of the district were thrown open to free grazing, a measure which was calculated to have benefited 60,000 head, the cattle census of 1897 showed 97,000 head of cattle and 61,000 sheep and goats less than that of 1895.

Private  
charity and  
loans by Gov-  
ernment.

From the Indian Famine Charitable Relief Fund,  $3\frac{1}{2}$  lakhs were received for expenditure in the district and nearly all of this sum was devoted to setting up afresh those who had suffered most severely by the distress. The Rájá of Sandur and a lady of the Kómáti caste named Paramma, residing in Bellary, were conspicuous for their charity during the famine.

The amounts advanced by Government under the Loans Acts were as shown below:—

	RS.
Land Improvement Loans Act—	
For construction or repair of wells ..	36,194
For other land improvements .. ..	3,36,328
Agriculturists' Loans Act—	
For purchase of fodder .. ..	2,82,059
For purchase of cattle and seed-grain. ..	17,657
For other purposes .. ..	73,588
Total ..	7,45,826

Cost to the  
State.

The loss to the State from remissions of land revenue was Rs 7,18,000 and from the decline in the Forest receipts, due to permitting grazing free, another Rs. 42,000; or altogether Rs. 7,60,000. The direct expenditure amounted altogether to 29 lakhs, of which 2·6 went in gratuitous relief and 22·8 in wages on the works. Nearly all these works consisted of making or repairing roads. The total cost to the State was thus some  $36\frac{1}{2}$  lakhs.

The famine was undoubtedly the severest which had visited the district since 1878, but warning had been taken from the results of the unpreparedness of 1876, the methods of fighting scarcity had been enormously improved, and owing to the great (some folk said excessive) liberality with which the people were treated the distress left few permanent traces behind it.<sup>1</sup>

The last bad season on record was that of 1900, but Bellary was but slightly affected, small works being opened in only one part of it, the Yeumiganuru firka of Adoni taluk, and the expenditure being only Rs. 6,500.

To sum up then, in the century during which the district has been a British possession, in addition to the numerous seasons in which things have been bad, but not bad enough to warrant State relief, there have been scarcities in 1802-04, 1805-07, 1824, 1884-85 and 1900, and famines in 1833, 1854, 1866, 1876-78, 1891-92 and 1896-97. As has been truly said, "the unfortunate ryot has hardly emerged from one famine before he is submerged under another."

Details of the sums which the earlier of these visitations cost the State are not available, but as far as can be ascertained the total bill for direct expenditure and loss of revenue due to famine in this one district even in the last half century amounts roughly to no less a sum than Rs. 196 lakhs as given in the margin.<sup>2</sup> The loss to the ryots will never be known

but was, of course, quite incalculably larger.

While the worst sufferings of Bellary have been those caused by deficiencies in the monsoons, there have been several occasions when on the other hand excessive rainfall has brought about disaster.

The first serious floods after the district was ceded to the Company were those of October 1804. Writing to the Board on the 4th November of that year, Munro said—

"In consequence of a torrent of rain between the 12th and 15th of last month, during which all the rivers and nullas rose to a height never before remembered, the greater part of the tanks have been destroyed over every part of the country from Harpanahalli to

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FAMINE OF  
1896-97.

SCARCITY OF  
1900.

SUMMARY.

FLOODS.

The disaster  
of 1804.

<sup>1</sup> Paragraphs 122 and 310 of the report of the Famine Commission of 1898.  
<sup>2</sup> For the famines of 1854 and 1866 separate particulars for the taluks which now make up Anantapur district are not available. Against these, therefore, one-half of the total cost in the old Bellary district as a whole has been entered.

CHAP. VIII. Chitvel<sup>1</sup> . . . . The nullas cut from rivers<sup>2</sup> have been buried in sand and in many places so deep that it is difficult to discover their former channels, and many villages have been swept away with all the property they contained and in several instances with a considerable number of their inhabitants."

FLOODS.

In May of the next year he sent some details of the damage done. In the four Ceded districts four dams, 752 tanks, 260 "nullas" and 855 wells had been either destroyed or greatly injured, and, although only such of them had been restored as possessed sufficient ayacut to repay the outlay in four years, as much as 6½ lakhs of rupees had been spent in repairing the damage they had sustained.

Storm of 1817.

Thirteen years later, on the 19th October 1817, the monsoon again set in with great violence. Writing in the following June, the Collector reported that 117 tanks, 58 channels and 312 wells in Bellary and Anantapur had been either breached or seriously injured. Nearly a lakh of rupees was spent in repairing the damage and two lakhs more were granted in remissions. Moreover the rain continued to fall for weeks without intermission and consequently hardly any cholam could be sown; and what little was put down was drowned by a return of very wet weather in November, so that the whole of the country usually grown with this crop presented "one uniform picture of desolation."

The Tungabhadra in flood, 1825.

In August 1825 the Tungabhadra rose to a great height and the cultivation along its banks was damaged, while several of the anicuts across it were "most materially injured."

Great storm of 1851.

For a quarter of a century thereafter no more floods happened, but in May 1851 there occurred perhaps the most disastrous storm that Bellary has ever known. On the afternoon of the 5th May heavy rain began to fall and it continued without intermission all that day and the next and the day after that as well. The storm entered the district at the Hospet taluk and swept from north-west to south-east across a tract of country about 50 miles in breadth. The Collector wrote that "the damage done was excessive. Houses have been washed down everywhere. Cattle in hundreds and even thousands have perished in the rain." The roads which lay in the track of the storm were rendered impassable and 253 tanks within its influence in Bellary and Anantapur, having an ayacut assessed at 2½ lakhs of rupees, were more or less seriously injured. Channels were swept away or obliterated, much land was ruined by the sand which was deposited on it, the anicut across the Tungabhadra at Rámpuram was damaged, the tanks at Daróji and Hanishi and the Nallacheruvu in Bellary town were

<sup>1</sup> Near the eastern frontier of Cuddapah district.

<sup>2</sup> That is, the river irrigation channels.

breached, the town of Gúliam on the bank of the Hagari in Alúr, which was formerly the head-quarters of a taluk, was swept away, and many lives were lost. In Anantapur district the destruction was apparently even greater than in Bellary.

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FLOODS.

Details of the damage done to the Daróji tank and village will be found in the account of that place in Chapter XV. The Bellary tank luckily breached at the southern end, or much of Brucepettah would have been swept away. Even as it was, several people were drowned in the town.

The estimates for the necessary repairs amounted to three lakhs and, as before, it was directed that only those works should be put in order which would cost less than four years' revenue to restore. An exception to this rule was, however, made in the case of the big tank at Daróji.<sup>1</sup>

With the exception of an unusual rise in the Tungabhadra in July 1882, which flooded 28 villages in the Harpanahalli, Hadagalli and Hospet taluks, the district has been free from serious inundations for the last half century.

Inundation  
from the  
Tungabhadra,  
1882.

Bellary seems to have experienced only one earthquake and this occurred at about 4-45 A.M. on Saturday, April 1st, 1843.<sup>2</sup> The ascertained limits of the shock were Sholápur on the north and west, Kurnool on the east and Harihar on the south; it travelled in a direction generally from south-west to north-east; and its intensity was apparently greatest at Bellary. A Bellary correspondent wrote to the *Madras Spectator* that a rumbling noise was heard there which became louder and louder until it resembled thunder and that with it came an undulating motion of the earth "which increased in intensity until the whole cantonment shook." His bed trembled until he felt almost giddy and then the noise gradually decreased and the agitation subsided. The previous night had been very stormy until about 4 A.M., when it suddenly became oppressively hot and still. Coinciding closely as it did with the first appearance of the famous comet of 1843 the earthquake seems to have filled the minds of the natives with all sorts of wild apprehensions.

EARTHQUAKE  
OF 1843.

<sup>1</sup> Report on Important Public Works for 1851, p. 15.

<sup>2</sup> The particulars following are taken from J.A.S.B., xiv, 610, ff.