

**FLOODS AND CYCLONES IN TANJORE DISTRICT DURING 19<sup>th</sup> CENTURY**

By

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**Abstract**

*Natural disasters like cyclones, floods, earthquakes, and landslides affect all countries in the world. It destroys substantial human and economic resources and stands as formidable barriers to regional, national and global developments. Cyclones are common all along the coast of the Bay of Bengal. They were most severe at the changing of the monsoons. Floods are a constant phenomenon on the west coast where the rapid streams of the rivers cut themselves deep beds; the rivers Krishna and Penniar are especially prone to heavy floods. The first flood in memory had occurred in March 1853 which was accompanied by a violent hurricane. The next cyclone took place in 1871 on November 6th and 7th. The consequences of the flood of November 1880 were more serious and resulted in the remission of two and a quarter lakhs of land revenue. During the 19th century, the last flood that occurred was in July and August of 1900.*

**Keywords:** *floods, cyclones, disastrous, disaster*

**Introduction**

Tanjore lies on the southeast coast of the Madras Presidency between 10° 8' and 11° 25' North and 78° 47' and 79° 52' East. It spreads over an area of 3,259 square miles. On the North, the river Coleroon separates it from Trichinopoly and South Arcot districts, on the West it is bounded by Pudukkottai and Trichinopoly, and on the South by the zamindari of Ramanad. The sea-board consists of two portions, one extending in a long straight line directly southwards from the port of Kodyampalaiyam at the mouth of the Coleroon to Point Calimere, and the other curving thence west and south for 50 miles along the Palk Strait to the mouth of

the Narasinga Cauvery river. The district is roughly triangular in shape, the three sides being formed by these two lines of sea-board and the Coleroon River (Baliga, 1957).

Tanjore was made up of the nine taluks of Tanjore, Kumbakonam, Mayavaram, Shiyali, Nannilam, Nagapattanam, Mannargudi, Tirutturaippoondi and Pattukkottai. It included within its boundaries the small French settlement of Karaikkal. The capital of the district was the municipality of Tanjore.

The name Tanjore is derived from 'Tanjan' a legendary asura in Hindu mythology. It means a rakshasan or giant, who according

to the local legend, haunted the neighbourhood and was destroyed by god Vishnu. His dying request was that the city might be named after him and this was granted. A more probable derivation is perhaps from thanjam, 'refuge' which would make the name mean 'city of refuge' (Chokkalingam, 1987).

The Cauvery and its tributaries are the principal rivers. Rising in the Coorg Mountains this river bifurcates about nine miles west of Trichinopoly into two branches of which the northern takes the name of Coleroon and the southern retains that of the Cauvery. They have all in the past been known to burst their banks and flood the country.

The only rivers known to flow outside the delta are a few which cross the Pattukkottai taluk which is torrential in character and of minor importance. Some anicuts have been built across them which hold up the water to fill irrigation tanks. The ancient dam, Kallanai, built by Karikala Chola in the 2nd century A.D. across the river Cauvery, is situated 48 km on the highway from Tanjore to Tiruchirapalli via Tiruvaiyaru. The average rainfall of the district is over 46 inches, which is rather higher than that in the adjoining areas. Kuruvai and the samba are the two main seasons of cultivation (Hamingway, 2000).

### **Objectives of the Study**

The main objectives of this research paper are the following:

1. To study the chronological account of floods of the 19th century.
2. To analyze the floods and cyclones conditions during the 19th century.
3. To trace the impact of floods on administration, economy, and society.

### **Importance of the Study**

The purpose of this study is to set down in chronological order, as far as the available historical sources permit, the meteorological situations related to the occurrence of floods and cyclones prior to 1900.

### **Methods of the Study**

This study is based on historical method.

### **Early Floods**

It is not however to the regularity of the local rainfall that Tanjore owes its singular immunity from famine and disastrous seasons. The greater part of the district, including its most populous portions, is covered by the delta of the Cauvery, a river which draws its water from vast and distant tracts, so that, whatever local failure of rain there may be, the farmer in the Tanjore delta is practically sure of a good crop. The more upland tracts in Tanjore and Pattukkottai taluks are liable to bad seasons, but even there (unless from extraneous causes) there is no danger of real famine, owing to the near neighbourhood of the richer lowlands, where labour is generally scarce and work is, as a rule, to be had for the asking. Hence the district is always considered to be adequately protected from famine. "The

influx of destitute persons from other areas is the only probable cause of scarcity”.

Previous to the occupation of the country by the English there were several seasons of scarcity, but no adequate description of them is available. Even during the time of the Cholas, a famine occurred at Alangudi, nine miles south of Kumbakonam, in A.D. and at Koviladi times were so critical that the village was ruined and the ryots fled; but in neither of these cases, the cause of the trouble became evident. Apparently, there was no loss of life. A famine of the seventh century due to ‘the absence of rain and floods in the Cauvery’ is mentioned in the Periapurannam (Gopalan, 1937).

Another famine occurred at the time of the famous invasion of Tanjore by Haidar Ali in 1781. The damages caused by his assault had the most disastrous results. In the preceding year, the yield of the rice crop in the Raja’s territory was nearly twelve million Tanjore kalams, but in spite of the efforts to repair the ravages inflicted by the Mysore troops, the crop yield never again reached that amount within the century. Both in 1781-82 and in 1782-83 the crop reaped was less than two million kalams. Probably the cultivators fled the site in terror before the invaders approached the place. The missionary Schwartz was in Tanjore at that time and he draws a miserable picture of the distress prevailing then: ‘As the famine was so great and of so long continuance, those have been affected by it who seemed beyond its reach. A vigorous and strong man is scarcely to be met with; in outward appearance, men are like wandering skeletons ... When it is considered that Haidar Ali has carried off so

many thousands of people and that many thousands have died of want, it is not at all surprising to find desolated villages... (Nilakanta Sastri, 1975).

In the great famine of 1876-78, Tanjore was also included in the suffering. The total harvest was 25 percent below the normal, but the chief causes of local trouble were the number of destitute and starving persons who fled from other districts and came begging around Tanjore. The large export of the local grain to less fortunate areas also adds to the cause. In the more arid Pattukkottai taluk, a great deal of hardship was felt from the actual failure of the crops, and the ryots say that a large number of people there were unable to reach the relief camps and perished from want of food. There is however no official record of any death from starvation. The statistics of deaths from cholera were high in 1877, but not more so than they have been several times in non-famine years (Mahalingam, 1977).

### **Flood of 1853**

The first flood of which there was any record occurred in March 1853 and was accompanied by a violent hurricane. An enormous volume of water came down the Cauvery, and the river, swollen further by heavy local rain, overflowed the banks of the various channels leading from it and covered the greater part of the delta. ‘In many places to use the words of Collector, ‘water stood for some days four and five feet deep over the high roads’. Fortunately, there was no loss of life, but the destruction of property was great. The roads and the embankments of the river

and the channels suffered very severely. The paddy had just been reaped and large quantities of it lying on the threshing floors were either washed away or decayed. Over 75,000 cattle and nearly 100,000 sheep and goats were drowned, and the winds caused massive destruction of houses and fruit yards. More than 41,000 houses were demolished and in the government villages alone over three million fruit trees were devastated.

### **Flood of 1859**

Another hurricane and flood took place in April 1859. Fortunately, there was very little grain on the threshing floors at this time, and the damage was consequently confined mainly to the breaching of the river banks and the destruction of houses and trees. At sea, the hurricane caused a terrible loss of life and property. More than 30 vessels were on the sea, and when both came ashore, nearly all the coolies were drowned.

### **Cyclone of 1871**

The next cyclone took place in 1871 on November 6th and 7th. It was more violent on the coast than in the interior and its centre was Tranquebar, where the loss of houses and trees was large. At Nagapattanam the roof of the railway station was blown off. The rainfall on this occasion however was not very heavy which ranged from 4 inches at Shiyali to 10.6 inches at Kumbakonam; there were no reports of any human loss due to the floods (Hamingway, 2000).

### **Flood of 1874**

Another high flood occurred in July 1874. On the 16th of that month, the water at the upper Anicut rose to a height that had not been reached for 15 years. Fortunately, the banks of all the rivers in the district had recently received a great deal of attention, and the damage done hence was very insignificant (Famine Commission Report, 1880).

### **Flood of 1880**

The consequences of the flood of November 1880 were more serious and resulted in the remission of two and a quarter lakhs of land revenue. Over 29 inches of rain fell in the month of November in the east of the district. The taluk which suffered most was Tirutturaippoondi. The flood was said to have been the highest ever known. Breaches occurred all over the delta and the damage done was boundless. Roads were destroyed far and wide and several towns were inundated. In Pukulam, a suburb of Tanjore, an entire street of thatched houses was leveled to the ground, 700 houses were destroyed in Tanjore itself; in the Nagapattanam taluk, the whole village of Muttam has swept away, though the inhabitants managed to save themselves fleeing in boats. The Collector described the disaster as a 'complete and utter collapse of the whole Delta Irrigation Scheme'; one of its results being that the urgent need for further protection from floods was clearly perceived (Bhatia, 1963).

**Flood of 1882**

Another important but less serious inundation occurred in July 1882. Heavy rains in Mysore and the Nilgiris brought a great flood down the Cauvery when the river began to rise rapidly. The greatest danger was experienced in the town of Kumbakonam. By the afternoon of the next day, Arasalar had burst its banks and had spread over a large part of the town. Serious and strenuous efforts were put to prevent the Cauvery from doing the same. The latter river was flowing at a height six inches above what reached in the great flood of 1880. It was estimated that 300 houses were destroyed in these floods. However, no lives were known to have been lost. Numerous wide ruptures occurred in the larger channels throughout the delta, and one of the roads in Tanjore taluk was flooded to the length of a mile and was impassable for ten days. The loss to the ryots was not as great as might have been expected, since the flood occurred in the early part of the cultivation season, and there was time to grow another crop (Subramanian, 1996).

**The Great flood of 1884**

The season of 1884, like that of 1853, was doubly disastrous. The southwest monsoon failed and the northeast rains were unusually heavy. The average rainfall in the east of the district in the months of October, November, and December amounted to 66.41 inches, and in Tiruvallur and Nannilam over 21 inches fell in one day on November 3rd. The rain

was incessant as well as heavy so that all the major and minor rivers in the east burst their banks in all directions. A large number of villages were completely underwater for days and even weeks together, and the crops over extensive areas in all the taluks, except Tanjore and Pattukkottai, were destroyed. It was found necessary to remit revenue to the extent of more than six lakhs of rupees. Of this over a lakh was granted for crops withered from want of water caused by breaches in the channels. Besides the damage to crops, a great number of houses and trees were destroyed. The taluk which suffered most was Tirutturaippoondi where the damage done to private property was quite high. The floods were followed by cholera, which literally decimated the inhabitants of many of the already impoverished villages.

An unusually high flood occurred in the Cauvery delta on the 11th of October 1887. New regulators on the Cauvery and Vennar had however been lately constructed, and they saved the Government and the ryots from the serious losses which might otherwise have occurred. The actual damage caused was small.

The taluks of Shiyali and Mayavaram were flooded by a deluge of rain at the end of 1891 and two years later another flood covered much of the south of the delta. The immediate cause of the latter disaster was a tremendous downpour towards the end of November. In the south of Pattukkottai taluk, 25 inches fell in 48 hours, and the bunds of the rain-fed tanks

which cover the face of the country were swept away extensively. The Vennar breached in several places and wide tracts of the country from Tanjore town to the sea were underwater for three days. The lower parts of Tanjore town were submerged and many people were saved by boats. Near Nidamangalam, half a mile of the railway line was washed away. It was at first apprehended that the loss of crop would be disastrous; but when the water subsided, it was found that the paddy was, generally speaking, little the worse for the immersion. The loss was restricted to fields recently transplanted, or where the grain was in-ear, and such areas were fortunately not extensive. The amount of remission granted for land submerged due to floods was under Rs. 6,000 and was confined almost exclusively to the taluks of Shiyali and Tirutturaippondi, which lie at the tail end of the channels of the delta and always suffer from its defective drainage system (Sreenivasa Ragahava Iyengar, 1893).

### **Floods of 1896 and 1898**

The northern taluks of Kumbakonam, Shiyali, and Mayavaram were the scene of floods in July and August 1896. The Coleroon was responsible for most of the damage; having breached its banks in a number of places. Fortunately, cultivation had just begun, and comparatively not much damage was done. In 1898-99 remissions amounting to Rs. 19,000 were granted in Tirutturaippondi taluk owing to the submersion of 4,000 acres of land (Rajayyan, 1971).

### **Hurricane of 1899**

In the next year, on November 12th, a great deal of damage was done by a cyclone that lasted from 7 or 8 a.m. till about 4 p.m. It was at its worst at midday when most of the damage was done. In Nannilam taluk it was estimated that Rs.70,000 worth of property had been destroyed, and the amount of damage done in Nagapattanam town was calculated at Rs. 1,83,000.

The last flood of any concern was in July and August of 1900. It chiefly affected the Shiyali taluk, in which Rs.11,000 worth of property was destroyed, and the most serious damage was done by the Coleroon. That river also carried away the great road bridge on the Madras-Tranquebar highway in November 1903. This disaster was chiefly due to the bad condition of the bridge.

The district suffered heavily due to such calamities. A glance at the statistics of the remissions of revenue which have been granted from time to time, and at the annual jamabandi reports, shows that there have been breaches in the river banks and loss of crops of a more or less serious nature almost every year (Famine Commission, 1901).

### **Conclusion**

The above study shows that the district suffered frequently in the late 18th and early 19th centuries due to natural calamities like floods and cyclones. Yet it is called the "rice bowl of tamilnadu" It is

all due to the resilience of the farmers. But with the help of advanced technologies which were not present before we can

overcome if there is any in the future. For that precautions should be implemented by the state holders.

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