CHAPTER – 3

MEASURES ADOPTED BY COMPANY GOVERNMENT ON IRRIGATION IN MADRAS PRESIDENCY
At the commencement of the Company's regime, there existed a vast number of channels, tanks and reservoirs, many of them in working order—which bore-eloquent testimony to the attention that was paid to this fundamental requisite of agriculture. But as Sarada Raju observed: "Almost every catchment basin, however small, still bears traces of having been bonded across, and in many instances this was done in order to secure a crop of paddy on a few acres of stony ungenerous soil, to which all the fostering care of the British administration has failed to induce cultivation to return."\(^1\) Besides these, there were a few major works by which the waters of such large rivers as the Cauvery and the Tungabhadra were utilized. Though they were not perfect from a modern standpoint, they gave excellent service, and such as they were, excited the admiration of all who saw them. The wonder was that at that period such extensive works could be conceived and carried into execution at all. Some of these constructions though very ancient were in working order at the close of the eighteenth century. Even in 1839, what remained of the construction provided for the Irrigation of "large and fertile tracts" adjoining the river.\(^2\)

**Advent of British and After:**

Before the British period, there was no record of the existing number of tanks, the area irrigated under them and the expenditure incurred on their construction or maintenance. At the same time, as we have seen, the history of tanks is embedded in the ancient scriptures and literature and engraved in edicts and etchings in the walls of the ancient temples. The stone sluices and surplus weirs have been left with some engravings of names of rulers or donors and their periods. The

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\(^2\) Ibid., p. 119.
British who had assumed imperial authority after 1800 had done only major works like Periyar Dam and Cauvery Mettur project and installed anaicuts or regulators across rivers and channels in Cauvery, Krishna and Godavari basins in 1850. But they had inherited over 39,000 irrigation tanks which account for 45% of the area brought under irrigation through channels, tanks and wells. When East India Company realized the important role played by irrigation tanks in preventing famines appointed Sir Arthur Cotton as Inspector of Tanks. Therefore the tanks formed the infrastructure for irrigation development and it is worthwhile to record that such tanks and related facilities had been built by native rulers before the establishment of Public Works Department (PWD) by the British in the year 1852. We shall deal with the construction, maintenance and repairs of irrigation works in existing tanks, channels, dams, and river basins and the expenditure incurred on their construction and maintenance since 1800 in this chapter. Before that let us look at the existing irrigation sources at the onset of British rule.

**Kudimaramath During Early British Rule:**

The term Maramath, implied all works of irrigation and Channels. In the early phase of British rule, a large proportion of the ordinary conservancy and repair of minor village works of irrigation were undertaken. These minor village works had been maintained and improved by Kudimaramath or tenant-repairs. The State or the Renters, however, contributed in most parts equitably to their conservancy. This contribution very generally – took the form of an equal share in the

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joint assignment of a certain small portion of the gross yield of grain, which was set apart in kind for the repair of the tank or channel.\textsuperscript{5}

The nature and scope of the kudimaramath work differed from place to place. In North Arcot, tank repairs were out of the purview of the 'kudimaramath' work, and only the repair of River channels received attention from the people. In South Arcot, community labour was mostly extracted for removing silt from irrigation channels, making up temporary dams in Rivers in the absence of masonry anaicuts, planting and keeping up a certain kind of grass on the banks of the rivers and main channels, so as to prevent the flooding of water.\textsuperscript{6}

In Thanjavur, the system included clearing of all the large, small, and minor branch irrigating channels and drainage channels within the villages, the repairing of embankments around the villages and fields. Outside the villages, the works included clearing of the irrigating channels during low freshes in the Rivers, erection of the earthen dams in the River at the heads of the channels, and the clearing of the channels when the banks were damaged by the freshes. Both the channel clearings and embankments were carried out before the cultivating season, but the former were executed three or four times in addition during the cultivating season. All the repairs costing less than Rs.50 were thus done by the mirasidars of Thanjavur. In Tiruchirappalli, there were three types of kudimaramath work. First, in the extensive


\textsuperscript{6} Arun Bandopadhyay, \textit{The Agrarian Economy of Tamilnadu, 1820 -1855}, p. 55.
tracts irrigated by the Cauvery, the indispensable corumboo or channel of the grass and sand constructed across the stream of the Rivers to turn water into channels were annually built; there were 18 of such dams temporarily constructed every year by communal labour. Second, the clearing of branch and village channels was also done annually. Thirdly, such labour was also common in the clearing of channels which supplied riverbed tanks together with minor repairs of the tanks themselves. It was stated that the whole amount of kudimaramath carried in Tiruchirappalli was valued annually at Rs.5000. In Coimbatore, while the ryots were ready to furnish labour for the clearance of channels, they tended to neglect the Conservancy of tank bunds. In Salem kudimaramath was common both “for the clearance of channels and for the removal of all brushwood or the like.\(^7\)

\textbf{State of Canals and Channels: - During British Period:}

The terms “Irrigation Canals and irrigation Channels” are synonymous. However “Canal” is normally used for bigger size channels, while the channels themselves are of comparatively smaller in size. The first requirement of an irrigation channels is that water in it should flow without silt sediment being deposited. The velocities of water should also be such that the channel section is not eroded. In short a channel should be non-silting and non-eroding.

The second requirement of an irrigation canal is that it should command the area to be irrigated by gravity flow outlets, fitted in the canal banks tank water to their respective commands. The size of which should be in consistence with

\(^7\) Ibid., pp. 55-56.
the quantum of discharge of these outlets. Gravity flow from canal to fields is ensured by adhering to the water alignment of the canal as far as possible. The third requirement of irrigation canals which is unfortunately overlooked in many canal projects is that percolation of water from the canal to the ground water should not result in undue rise of the water table. This rise in water table result in water–logging of the area which can be prevented by proper drainage of the area.8

Canal irrigation is certainly a complicated procedure it involves hundreds of thousands of farmers distributing water in their fields, at the end of a hierarchy of field channels, watercourses, minor canals, distributary canals, main canals, reservoirs, and watersheds.9

**Development of Channel Design:**

The irrigation canal which draws its supplies from Rivers draws along with the water its share of sediment too. Such an artificial channel as it flows along, deposits silt in some places, scours in others.

In South India, after the tanks were taken over by the administration and a large number were going into disuse, Madras Presidency appointed engineers to look into the reasons, again without consultation with local institutions. This engineering unit was made into a full Department in 1819, which evolved into the Public Works Department (PWD). The British also took over management of existing


ancient canal systems as on the Cauvery River. Without local maintenance these quickly fell into disrepair, so the government did not know what to do except to appoint engineers to look after them.\textsuperscript{10}

I

Irrigation in Northern Districts of Tamil Nadu:

On the 23\textsuperscript{rd} April 1800 A.D. Buchanan started from Madras on his tour of statistical inquiry. He recorded a number of old pre-British irrigation facilities found in his tour area. They were:\textsuperscript{11}

1) **Condatura** (Kunrathur): A large reservoir of an old irrigation work of 8 miles length and 3 miles width.

2) **Sriparmatura** (Sriperumbudur): A reservoir irrigated 2000 acres of rice land.

3) **Conjeevaram** (Kanchipuram): A reservoir, which was said to have been constructed by Nawab Mohomed Ali, irrigated about thousand acres of rice land.

4) Palar River irrigated land between Uthiramerur and Coulur.

5) Reservoir at Cauverypakkam in Arcot of 8 miles long, 3 miles broad (Cauverypakkam to Arcot was barren).

6) In Baramahal (Salem) Buchanan found out on 10, May 1800 many small irrigation works and reservoirs in a state of neglect. This, he thought, was due to 4/10 of cultivators had been driven out from their home following the recent wars.

\textsuperscript{10} Ibid.

7) At Madurai, a large reservoir built by Vishnu Vardhana Raya around 700 years earlier, irrigated hundreds of acres of land around.\textsuperscript{12}  

8) In Colegala (Kollegal) of Coimbatore District alone more than 50 large reservoirs existed for irrigation. Some of them had been repaired by the Company's servants, after the district had come under the possession of the company.  

9) Along Tumbula, a tributary of Cauvery River, 5 old reservoirs existed, but all had burst out 50 years before and never been repaired.  

10) Dam on Bhawani River irrigated hundreds of acres of land through canal irrigation. Noyyal River canal irrigated hundreds of acres of land under rice, cotton and tobacco cultivation.  

11) In Erode a canal constructed by Kalinga Raya 400 years ago irrigated 3459 acres of land.  

12) At Kodumudi a canal from Cauvery River irrigated large tracts of lands.  

13) In Karur several canals from Amaravathi and two canals from Cauvery irrigated thousands of acres of land.  

Buchanan's data prove that Tamilnadu had already a number of old tanks irrigating thousands of acres of land which remained under the cultivation of rice, sugarcane, tobacco, indigo etc.\textsuperscript{13}  

The Caveripak tank mentioned by Buchanan yielded revenue of Rs.50, 000 and the Chembarambakkam tank in Chengalpattu irrigated 58 villages.  

\textsuperscript{12} Romesh Dutt, \textit{The Economic History of India, Vol.1}, pp. 140-142.  

Other large tanks were those at Mamundoor in North Arcot, Cumbum in Cuddapah, Cunningherry in Nellore and Bapatla in Guntur. Such tanks however, were not numerous, the majority of tanks in South India being less than half a mile in length and yielding hardly Rs.5,000 each as revenue, while many yielded Rs.1,000 and even less. 14

**British Investment on the Repair:**

In the beginning the British did not show much interest on the irrigation work. The Company servants had to plead even for a small amount for the repair work. Usually the large tanks were maintained by the state Government and the smaller ones were in charge of the local revenue officials. Repair of them were generally carried out by the cultivators themselves by a traditional system of maintenance known as "Kudimaramath". In the latter half of the 19th century the British collected a maramath cess.

The Coovum River in Madras drained into the sea within municipal limits. Its course was short, and except during the North-East Monsoon, the volume of water it carried was insufficient to keep open the discharge into the sea. A backwater was thus formed round the “Island” whose stagnant condition, aided by the drainage of one or two suburban villages on its banks, had proved at times a serious drawback to the sanitary condition of the immediate neighbourhood. On the recommendation of the Inspector –General of Civil Estimates, the Board fortified the banks of the

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Coovam River along the Poonamallee road between Chetpet and Arumbakkam. This cost Rs.389 rupees, 9 anna and 4 paisa, and the plan was implemented immediately.\textsuperscript{16}

In 1811 the inhabitants of Chintadripet, Madras complained that the dam thrown across the river on the east side of the village caused floods which almost submerged their houses. They had requested that a bridge may be constructed instead of the dam. The superintending Engineer was of the view that the damage to the fort and the island would be greater, if the dam breached. Therefore government directed that the dam should be repaired.\textsuperscript{17}

The Collector of Madras requested to the Governor in Council based on the petition from certain Inhabitants of Tenampet, who represented that the course of the water from the long tank to their field was obstructed by the roots of certain banian trees in the mount road.\textsuperscript{18} D. Hill, the Secretary of Board of Revenue ordered on 9\textsuperscript{th} July 1822 for removing the roots of a banyan tree at a distance of 16 feet from the Thenampet channel because of its roots interfering with the flow of water from that channel complained by the inhabitants of Thenampet.\textsuperscript{19}

According to the request of inhabitants and \textit{mirasidars} of Perambur and Chetput the Collector L.Y.K. Murray recommended to the Board of Revenue for

\textsuperscript{16} \textit{Madras District Records}, Vol.993, p. 44.
\textsuperscript{17} \textit{Madras District Records}, Vol.987, p. 245.
\textsuperscript{18} \textit{Board of Revenue Consultation}, Vol.911, dated: 25.04.1822, p. 3813.
\textsuperscript{19} \textit{Board of Revenue Consultation}, Vol.918, dated: 11.07.1822, p. 6538.
constructing sluice to the tanks in their respective villages, and submitted an estimate of expenditure from Major De Havilland for completing the work.\textsuperscript{20}

\begin{itemize}
\item At Perambore \ldots \ldots Rs.397 rupees 8 Anna 0 Paisa
\item At Chetpat \ldots \ldots Rs.397 rupees 8 Anna 0 Paisa
\item Total: \quad Rs.795
\end{itemize}

The Governor in council sanctioned the estimated expense amount of Rs.795 to construct the sluice at Perambore.\textsuperscript{21}

It appears that on the representation of the mirasidars of these villages about the weak state of the two tanks in question, the Collector conceived it necessary to order their immediate repair, without waiting for the sanction of government to secure them against the effects of last monsoons which would otherwise have increased the damage and if timely assistance was not rendered would have proved injurious to the cultivation. Murray therefore in anticipation of the sanction of the Board for the expenditure, executed the measure.

In Madras the expenditure actually incurred for repairing the banks of the two under mentioned tanks in 1824 in detailed below.\textsuperscript{22}

\textsuperscript{20} \textit{Board of Revenue Consultation}, Vol.926, dated: 17.10.1822, pp. 9559-9560.
\textsuperscript{21} \textit{Board of Revenue Consultation}, Vol.929, dated: 31.10.1822, p. 10005.
\textsuperscript{22} \textit{Board of Revenue Consultation}, Vol.1015, dated: 24.03.1825, p. 2734.
TABLE: III – 1

Statement of Expenditure on Repair

<table>
<thead>
<tr>
<th></th>
<th>Rupees</th>
<th>Anna</th>
<th>Paisa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairing the Egmore or Spur Tank</td>
<td>35</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>For repairing the Nungambakkam on long Tank</td>
<td>157</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Requiring the sanction of government of Total rupees.</td>
<td>192</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Board of Revenue Consultation, Vol.1015, dated: 24.03.1825, p. 2734.

In Chengulpattu district the monsoon has passed without any damage caused either to the bank or calingula of the Maduranthagam tank although the water rose in the course of the 28th night of 1800 and measuring of the 29th December to more than five feet above the level of the calingula. The dam was constructed for the last time with 3 feet 9 ½ inches of water above the level of the calingula which was a greater quantity but not retained in the tank. With some new plan for forming the dam, E. Greenway, the Inspector of Tank Estimates made a request to the Board to sanction the sum 18 pagodas 11 fanam and 17 paisa to raise the level of the Maduranthagam tank.23

J. Hepburn, the Collector of Chengalpattu, ordered repair of Chembarambakkam and Madurantakam tank. On 21st May 1805, the tank Chembarambakkam having been full of water for the two last seasons prevented the work from being conveniently undertaken, but as the dryness of the following year was favorable for the construction of masonry, the Board ordered for the

23 Board of Revenue Consultation, Vol.272, dated: 31.01.1801, p. 1280.
commencement of work. The total expense of Madurantakam Lake from 27th July 1803 to 31st March 1804 was 700 Star pagodas. 24 D. Hill, the Chief Secretary of Board of Revenue, sanctioned a sum of 177 pagodas for the clearing the channel of Chembarampakkam. 25

According to D. Hill, the Secretary’s letter of the 25th instant of 1818, the Governor in Council sanctioned the amount of Rs. 24,977 rupees 13 anna and 2 paisa to be spent for the repair of the Chembarambakkam tank in the Chengalpattu district and also sanctioned the charge of Rs. 217 rupees, 14 anna and 4 paisa incurred by Major De. Havilland, the Inspector of Tank Estimates in Superintending the Repairs. 26 An estimate for the repair of the bank of the large Puzhal Eri or Red Hill tank was prepared on the 25th same month. 27 The enquiry was required to be made about the tanks in the neighborhood of Madras which usually burst with every heavy fall of rain causing great damage to the public roads along the black town. 28

**South Arcot District:**

In 1802 Havoy, the Assistant Collector of South Arcot wrote a letter to the I.G. Grahams, the District Collector, that the cultivation would be affected by delay in executing the necessary repairs of the dam across the Gadilam River. 29

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26 *Board of Revenue Consultation*, Vol.845, dated: 03.01.1818, p. 7.
28 *Ibid*.
The leading channel from the Cheyar River in to the Oratamalore tank being almost entirely choked up with sand, in response to the request of Zamindar the Collector J. Heburn appealed to the government for repair. A survey was undertaken and the estimated expense of its repair was about 620 pagodas. In 1805 the Collector requested the Board to commence the work immediately in order that the channel would receive the water when the river was expected to fill that during the monsoon.\(^{30}\)

In 1805 the Collector of South Arcot estimated that three thousand tanks were under repair. The Tahsildar estimated the expenses at 40,793 pagodas but the Board sanctioned only 30,000 pagodas. It was stated that the increase of cultivation, if the rainfall plentiful, would repay this expenses in one year, besides improving greatly the cultivation of other land already cultivated.\(^{31}\)

In 1806 Ravinshaw, the Collector of South Arcot, recommending to the Board of Revenue that the surplus water from the Kollidam River could be carried to the tank of Chinnapau Paramudrum by executing a channel 4 ¼ miles long to it and through this tank irrigation 344 *cawnies* of land could be cultivated. \(^{32}\)

W. Cashshaw, the Assistant Collector of South Arcot wrote a letter to the Collector of South Arcot that the amount transmitted from Board to Bhuwanagiri, sum of 580 pagodas, and to Tindivanam, a sum of 350 pagodas, for the repairs of tanks in these taluks before the commencement of rains was insufficient and


considering the state of the tanks it was difficult to ensure the collection of land revenue fixed for next year.\textsuperscript{33}

Near the village of Gangaikondapuram there were remains of what must have been once a magnificent tank, like the Veeranam tank in South Arcot District. The embankment of this gigantic reservoir, extending almost across the taluk from north to south, and about 16 miles in length, is still to be seen.\textsuperscript{34} It appears to have been supplied with two channels, one from the Kolli dam, which entered it at the southern end, and another smaller one from the Vellar, which flowed in at the north end. Traces of these channels remain, but the tank has been abandoned for years, and the bed is now almost entirely over-grown with jungle.\textsuperscript{35}

But as this measure was likely to diminish the irrigation supplied from the Kolli dam to the Mannargudi and Chidambaram Taluks of South Arcot, a second Anaicut was at the same time thrown across the Kolli dam just below the head of the Vadavur, through which an increased supply of water was fed into the Veeranam tank. These large masonry weirs were constructed in 1836, and were called respectively the upper and lower Kolli dam Anaicuts. The first came into operation in

\begin{flushleft}
\textsuperscript{35} Ibid.
\end{flushleft}
1836 which the channels of the latter were not ready to provide irrigation until the following year (1837).  

The rates of dry assessment in these taluks varied from 10 Annas, to Rs. 3 and 8 Anna. About two-thirds of the dry land was charged 1 Rupee per acre. The Company has asked for an increase per acre of Rs. 2 to the rate for ordinary irrigation for one crop, and for proportionate increases to other rates. The dry lands in the taluks were, as a rule, different. There were, however, some lands along the Kollidam bank and the South Arcot frontier, where the soil was compounded of black sand and loam, and considered superior to those found in the rest of the place.

**Rebuilding Palar, and Cheyaur Anaicuts:**

An expenditure of Rs. 16,593 was incurred in completing the construction of a step in rear portion of the structure of the Palar anaicut, and in lengthening the bead sluice, and extending an aqueduct and three bridges in connection with the Cheyaur anaicut in the North Arcot District. An anaicut was built across the Cheyaur River, in the South Arcot district, at an outlay of Rs. 3,280.

Part of the Salem district came into the possession of the English in 1792, and the remainder in 1799. A field survey and assessment were made on

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ryotwary principles, but were immediately followed by quinquennial leases, on the expiry of which the district was parcelled out into zamindary estates, and sold to the highest bidders. The great majority of these estates, after unscrupulous rack renting, ultimately were returned to the Government. In 1816, and, again in 1818, reductions of assessment were ordered in those parts of the district where, owing to the breakdown of the zamindary system, a ryotwary settlement had been made. A more effectual means of relief was the operation of the "cowle rules," enabling ryots to take up, at favorable rates, lands which, on account of over-assessment, had been left uncultivated for ten years. The loss of revenue on this ground was Rs. one lakh in 1830. Percentage reductions were also made in 1855 and 1859. The lowlands were watered by the Cauvery, but not extensively, as the river covered small area in the district.39

In 1814 Hargarve, the Collector of Salem, transmitted the estimate to the Board for the approval and forwarded statement of sum disbursed in the Cauvery channel for repairs and deepening.40

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TABLE: III – 2

Statement of Disbursement for Tank Repairs in Salem District in 1814.
(Up to 30th September).

<table>
<thead>
<tr>
<th>Name of the Taluk</th>
<th>Star pagoda</th>
<th>Fanam</th>
<th>Casu</th>
<th>Star pagoda</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salem Taluk – Dam repaired in the estate of Bellore</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>87</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Raizepoor Taluk – Water channel repaired in the estate of Accrapatti</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32</td>
<td>38</td>
<td>46</td>
</tr>
<tr>
<td>Namakkal Taluk – Water channel repaired and deepened in the estate of Kumarapalayam</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>300</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sankagiri Taluk – Tank repaired in the estate of Tharapur</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Womalloor Taluk – Tank repaired in the estate of Tharamangalam</td>
<td>15</td>
<td>19</td>
<td>23</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tank repaired in the estate of Dharapuram</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tank repaired in the estate of Bellary</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hoosoor Taluk – Tank repaired in the village of Keelamangalam</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tank repaired in the village of Sautanoor</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tank repaired in the village of Pomauunhilly</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tank repaired in the village of Hoosoor</td>
<td>36</td>
<td>-</td>
<td>-</td>
<td>57</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total of Star Pagodas</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>562</td>
<td>34</td>
<td>23</td>
</tr>
</tbody>
</table>

TABLE: III – 3

Estimate of Expenditure for Repairs of Tanks in 1816 Relating to Certain Taluks of the Salem District.

<table>
<thead>
<tr>
<th>Name of the Taluk</th>
<th>Star pagoda</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salem</td>
<td>26</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Namakal</td>
<td>30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Parmathy</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sunkerydrug</td>
<td>53</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wamaloor</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hossor</td>
<td>171</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Pagodas</strong></td>
<td><strong>350</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


According to the Secretary D. Hill’s letter of the 25th instant of 1818, the Governor in Council sanctioned the amount of Rs.19,853 rupees, 13 anna approving the proposed restoration of the anicut near Athoor across the Codevenaur in Salem.\(^{41}\)

In 1832 the inhabitants of Kattupudur village in the Namakkal taluk made a demand to the Salem Collector construction of a solid dam across the river Cauvery. They complained that the entire channel obstructed the river with no water passing the place except by leakage. Therefore the Salem Collector communicated to R. Nelson, the acting Collector of Tiruchirappalli, to arrange for removal of this dam substituting for it the ordinary corumboo of sand and trashes.\(^{42}\)

\(^{41}\) *Board of Revenue Consultation*, Vol.845, dated: 03.01.1818, p. 5.

\(^{42}\) *Trichinopoly District Records*, Vol.4401, p. 140.
In Tiruchirappalli, under the head of Irrigation, the result of the year’s operations was stated thus: “The most important River is the Cauvery which about 11 miles west Tiruchirappalli divides into two branches. The northern branch is called the Kollidam, while the southern branch retains its name of Cauvery. Nearly the whole district drains into the Cauvery with the exception of a small portion in the north, the drainage of which flows into the Velar. Besides the Upper Anaicut there are minor channels taken off from the Cauvery and the Kollidam. The channels from the Amaravati irrigate a small area in the Kulittalai taluk. There are also 1669 tanks and streams, the bulk of which irrigate less than 50 acres”.  

The first survey of the upland taluk was made in 1805 - 1806 and the ryotwary system was introduced in 1813 - 1814; but no alteration was made in the existing rates of assessment, which had developed themselves during the times of native rules varying not only with the soil, but also with the crop and the condition of the cultivator.

Until 1826-1827, the annual settlement was made with the headman of the village leaving the ryots to distribute the demand among them. In that year pattas were given to the ryots for the first time, with the permission to relinquish land they did not wish to cultivate. This permission was extensively made use of, and when, in 1833 - 1834, the lands of revenue defaulters were first put up for sale no purchasers could be found to take them.

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The Board drew attention in their Proceedings of May 1855, to the fact, that, during the 35 years previous to the construction of the Kollidam Anaicuts, namely from 1801 to 1836, Rs.30 lakhs of were spent on Public Works, and the annual increase of revenue was Rs.15 lakhs whereas, during the 17 years since the anaicuts were built, Rs.20 lakhs had been spent, and the revenue had risen only 2 ¼ lakhs annually. 45

On December 7th in 1802, the Rivers of the Cauvery and Kollidam rose to a height unknown in the past 27 years. The immense body of water caused sudden inundation and a number of breaches. The Collector of John Wallace proceeded to repair the banks of the Rivers. 46 G.F. Travers, Collector of Tiruchirappalli wrote to the Board pointing out several breaches and the damage done to the tanks, banks, and the channels in the Tiruchirappalli division, in 1804. In carrying out of the repairs of the money spent were 7000 pagodas per annum. 47

The cost of executing the project was not to exceed 3911 pagodas and 31 fanams according to the estimate received form caption Caldwell in 1807. The Collector requested the Board for sanctioning the amount and commencing the work at an early period, as the excavation, of the channel & the construction of the sluice had to, be undertaken & finished as soon as practicable. 48

48 Trichinopoly District Records, Vol.3665, p. 413.
In 1809 the irrigated villages were leased out for a term of three years. The Brahman landholders, who owned their greater portion of the lands in these villages, refused at first to take up the leases, and did their best to thwart the attempt to the Tiruchirappalli Collector in every way. The Collector G.F. Travers attempted then to get strangers to take the leases, but with no success, as all the Brahmans were in league against the new-comers, and had it in their power to ruin them by leaving their fields uncultivated. At last, however, he was able, by promises of remission of assessment and assistance, to induce a few strangers to come forward, and the Brahmans, finding themselves forced either to take the leases or give up their lands for three years, came to terms with the Collector, and agreed to accept the leases proposed by him.49

At the villages of Sirumani and Perumani, the Uyyakondan nullah took a turn rather to the southward and thereby endangered the bank on the frontier of the latter village. The inhabitants of Perumani were anxious that a new channel should be dug directly. But as some land belonging to the Sirumani village, inhabitants was involved, they had to give their consent. G.F. Travers, the Collector visited directly above mentioned villages and noticed a very large breach on the banks of the Uyyakondan nullah. Unless it was repaired the southern bank of the river was expected to burst again. So he ordered to Captain Fotheringham, Superintendent of Tank Repairs, take steps to preserve the tank.50

Captain Fotheringham examined the Uyyacondan nullah on 14th April 1810 and prepared a plan for the repair of Uyyacondan nullah at the distance of about 7 miles. He estimated the cost as 23495 star pagodas 22 fanam 4 paisa for repairing the breaches in the Uyyacondan from the Puthur bridge with the plan of the Assistant Surveyor. Tiruchirappalli Collector recommended to government for the sanction of money to proceed in the execution of the necessary repairs without delay.\(^5\)

On 5th April 1810 G.F. Travers, Collector of Tiruchirappalli, wrote to the Collector of Thanjavur requesting him to clear the stones from the Dalawaye Mantapam, in the villages of Natarajapuram and Yettanumpatty, which required repairs.\(^6\)


TABLE: III – 4
The Statement of the Acting Civil Engineer of the Southern Division on Repairs Executed to River Channels and Dikes in Tiruchirappalli Collectorate, 1823.\(^{53}\)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount sanctioned as estimate</th>
<th>Amount of accompanying bill for repairs</th>
<th>Balance remaining for unexecuted work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill for ordinary repair performed based on estimates – sanctioned on 2(^{nd}) September 1823</td>
<td>52,697 Rupees 7 Anna 22,906 Rupees 5 Anna 29,791 Rupees 1 Anna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill or occasional works executed in and extended expenditure sanctioned on the 21(^{st}) February 1823</td>
<td>17,893 Rupees 2 Anna 3,465 Rupees 1 Anna 14,428 Rupees 3 Anna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work executed by order of the civil engineer.</td>
<td>- Rupees - Anna 3,383 Rupees 14 Anna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour charges</td>
<td>- Rupees - Anna 1,844 Rupees 15 Anna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>- Rupees - Anna 31,600 Rupees 5 Anna</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Another Set of Bills for Maramath Works Performed in the Tiruchirappalli District in 1822 is given in the Table: III - 5.\(^{54}\)

\(^{53}\) *Board of Revenue Consultation*, Vol.1015, dated: 24.03.1825, p. 2730.

TABLE: III - 5

Statement of Expenditure Incurred on Maramath Works

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Amount of estimates sanctioned</th>
<th>Amount of accompany bills for repairs</th>
<th>Balance remaining for unexecuted works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rupees</td>
<td>Anna</td>
<td>Paisa</td>
</tr>
<tr>
<td>1</td>
<td>No.1 bill for ordinary repairs based on estimate sanctioned 30th November 1824</td>
<td>32,958</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>No.2 Bill for occasional work executed in part of estimate sanctioned on 21st 1823</td>
<td>14,428</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Repairs performed by order of the civil engineer as an extraordinary case</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Maramath coolie charges</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


II

**Irrigation Repairs in Tiruchirappalli and Thanjavur Districts:**

A canal taken off from the Cauvery, without the assistance of a dam is called Corum.\(^55\) In Karur area there were two canals (Corums) from the Cauvery, that water large area of rice – land. Several canals for watering the ground were also brought form the Amaravathi, both by means of dams (Anaicuts), and by simple canals, or Corums. The supply of water in this River did not always last the whole

year. Therefore in some seasons, there was only one crop of rice. The River Amaravathi was about 400 yards wide; but its stream was about two feet deep. The channel was entirely of sand, and the banks were very low; so that, for watering the rice-grounds, canals (Corums) could be easily taken from it.\(^{56}\)

Two vast lakes named Ponneri & Peria Ponneri overflowed to the extent of damaging the village in the neighborhood of the town of Udayarpalayam. Acting Collector B. Nelson of Tiruchirappalli District made enquiry into its history training the period of its construction & demolition. The bank ran nearly north and south, almost parallel with the great Veranam Lake in the Cuddalore District.\(^{57}\)

The Ponneri irrigation canal, 16 miles in length, with its subsidiary regulating sluices and minor channels for the distribution of water, were so advanced, and supplied water from the River Kollidam, for the cultivation of a large area of waste land. The Uyyakondan channel, on which Rs.19, 144 were spent during 1855-1856, was completed, and added to the irrigable capabilities of the District. The total outlay of these works, up to 30\(^{th}\) April 1857, was about Rs.1,15,000. Water sufficient for the irrigation of 8,000 cawnies of land was now available and distributed over rich land, more than half of which had been hitherto waste.\(^{58}\)


\(^{57}\) *Trichinopoly District Records*, Vol.4401, p. 57.

Cannels of the Cauvery:

The principal sources of irrigation are the Cauvery and its Channels.
The villages and extent of area irrigated by the most important of these channels are
detailed below: ⁵⁹

### TABLE: III – 6

**Important Channels of the Cauvery in Tiruchirapalli**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Names of Channels</th>
<th>No. of Villages Irrigated</th>
<th>Irrigable Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>Inam</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Extent</td>
<td>Assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acres</td>
<td>CTS</td>
</tr>
<tr>
<td>1</td>
<td>Uyyakondan</td>
<td>89</td>
<td>16,457</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>Elanda Vattalai</td>
<td>7</td>
<td>1,919</td>
<td>82</td>
</tr>
<tr>
<td>3</td>
<td>Ayyan vaykkal</td>
<td>66</td>
<td>9,855</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>Peravala Vaykkal</td>
<td>97</td>
<td>12,964</td>
<td>59</td>
</tr>
<tr>
<td>5</td>
<td>Nattu Vaykkal</td>
<td>15</td>
<td>3,335</td>
<td>35</td>
</tr>
</tbody>
</table>


Uyyakondan Channel:

The Uyyakondan channel received a supply of water from the first freshes in the river Cauvery but not more than ¼ of the quantity of water obtained by the rainy season. This channel conveyed it to 4 tanks in the fort called Berrunghee kulam, Chavady kulam, Goary kulam and Sunderdoss kulam thereby irrigating nine large villages in the Lalgudi district.\textsuperscript{60}

The construction of a new watercourse in the Namakal area brought an unusual quantity of water into the channel which passed through Worawandoor and hence to be watered first only the surplus water reached Uraiyur. So in order to provide enough water require for the lands cultivated in Uraiyur, Wallace, Collector of Tiruchirappalli made enquiry on enlarging the new water courses.\textsuperscript{61}

The Board reported that on reference to the records, that from A.D.1800, When Thanjavur was ceded to us, through 1851 the sum spent on works of irrigation and communication in Thanjavur amounted to 52 ¼ lakhs, and that in the same period excluding the first year of all the total revenue collections had risen from 31 to 48 ¼ lakhs per annum an increase of 17 ¼ lakhs

\textit{Irrigation 43lakhs, Roads and Bridges 9 ¼ lakhs.}

\textit{For reasons of which Colonel Cotton does not question the property}\textsuperscript{62}

\textsuperscript{60} Board of Revenue Consultation, Vol.1389, dated: 14.11.1833, p. 14364.

\textsuperscript{61} Trichinopoly District Records, Vol.3642, pp. 15–16.

Colonel Arthur Cotton in his “Memorandum “contended that the Board was grossly in error. He commented with his observations on the question just referred to, and pointed out that the Board’s estimate of expenditure was for 52 years, while his figure was for 50 years. Therefore the years 1800 and 1851 are to be struck out, 3 ¾ lakhs must be deducted from the 52 ¼, leaving 48 ½ lakhs spent in fifty years.\(^63\)

With reference to that the state of the new channel dug in the place of the Govinda *calagum* to supply Laulgudy, 460 yards of the head of the new channel was too blocked up with sand that no water could pass through it. The Govinda *calagum* was closed and the water of irrigation did not reach the Lalgudy people.\(^64\)

By an outlay of Rs.45,000 River-fed irrigation canals, whose aggregate length was upwards of 250 miles, with an elaborate net-work of minor distributive channels and their numerous regulating masonry works, were kept in fair working order. These channels provided the land with 1,200 million cubic yards of water per annum, by drawing it off from the Cauvery, and conveying it to and irrigating upwards of 75,000 cawnies of rice land. This system generated revenue of nearly Rs.6,00,000. The repair and improvement of tanks were well attended to, and the outlay on that account was Rs.17,000.\(^65\)


\(^{64}\) *Trichinopoly District Records*, Vol.4401, p. 25.

The Ponneri channel from the Kolli dam irrigated 17 villages and the greater part of the land under it was assessed at Rs.3 rupees, 12 anna. The Kandradittan channel taken off at the Nandaiyar anaicut in Tiruchirappalli Taluk, irrigated seven villages. The tank - irrigated lands in the taluk, which were poor, and for the most part assessed at Rs.3-4 an acre. The Kandradittan tank, with an ayakat of 749 acres, yielded a revenue of Rs.2,654 per annum. The tank in Sripurandan village ayakat 411 acres covered and generated Rs.1,765; as revenue, which Sukra tank in Kamarasavelli village, ayakat irrigated 551 acres, and fetched Rs.1,644 as revenue.66

On the 8th February 1828  H. Dickenson, the Collector of Tiruchirappalli District, addressed the rajah of Pudukottai on cutting a channel, through some waste lands attached to the village of Kullemangalam belonging to rajah Tondaimon. In reply of that the rajah Tondaimon had consented to the channel that was expected to lead to the village of Thorakudy in Tiruchirappalli District. While the inhabitants of Thorakudy were proceeding to cut the channel the residents of Kullemangalam and other villages belonging to Tondaiman, assembled in a mob, and seized the pattadar, and three inhabitants of Thorakudy, carried them forcibly away, and placed them in confinement. The Tahsildar obliging the rajah kept them in confinement for 10 days refused to release them unless they paid a fine of 200 chuckrums. In 7th September 1828 H. Dickenson, the Collector of Tiruchirappalli district requested to the rajah to make inquiry into the case, and to put a stop to such attitudes of the people attached to Tondaiman.67

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The Mirassidars of the village of Mannargudy, complained of the reconstruction of a sluice, which was damaged by flood on October 10th 1830 to the principal Collector N.W. Kindersley of Thanjavur who recommended to it the Board of Revenue. 68

The experiment of opening the sluice should be tried for a year or two on The Mirassidars of Mannargudy executed an agreement to rebuild it at their own expense at such place as the engineer may point out, should it upon trial prove necessary. 69

Complaint dated 1st April 1831 from Muthu Mudaliar the village Munisiff, and other the inhabitants of Paroovoyel in the district of Chengalpattu stating that the Zamindar Agateeswara with the inhabitants of Kulimadoolumpadoo had dug a new canal. This filled up their channel which irrigated a great extent of land with sand from Zamindar cannel. When they reconstructed it the Zamindars people beat them. This was conveyed to Mr.Greenway by evidence but no decision was taken by him. Then they appealed to the Collector in vain praying that the work be stopped as it was expected to cause a loss of 1,000 pagodas per annum. 70

The Tahsildar of Musery send a petition to the principal Collector of Salem in which the inhabitants of the village of Mooganoor in the Salem district had prevented the water from flowing into the channel of the Woravandoor village in the

69 Ibid., p. 12929.
70 Board of Revenue Consultation, Vol.1288, dated: 13.06.1831, p. 5527.
Tiruchirappalli district. H.M. Blair, the Collector of Tiruchirappalli urged the Salem Collector dated on 15th December 1832, to take necessary steps to prevent the people of Mooganoor from obstructing the passage of the water in future.\footnote{Trichinopoly District Records, Vol.4401, p. 226.}

In 1833 the Prince of Arcot H.H. Naib-i-Mookhtar complained to the Board against the Tahsildar for preventing water taken from the channels of the tanks and rivulets to the cultivation of the prince’s lands in Tiruchirappalli and for removing a bund put up to prevent an inundation by the river.\footnote{Trichinopoly District Records, Vol.4387, p. 246.}

A Suit was instituted in the court of the assistant judge at Coimbatore by a cultivating tenant against the Collector and his officers for the recovery of damages sustained by the loss of water occasioned by the refusal the defendants to allow water to his lands.

The court was moved by the Collector to state whether the suit should not be preferred to the Collector in the first instance as according to one of the orders of the sadr Adalat of the Collector only can take cognizance of disputes regarding the irrigation of land.

On the reference made by the Assistant Judge, the court of sadr Adalat observed. That there has been no alteration of the law as to the liability of the Collector to be sued for an act done in his official capacity.
The irrigation of Thanjavur depended on the Cauvery River which split into two branches a few miles to the west of Tiruchirappalli, one of which retained the same name, while the other came to known as Kollidam. For many years the bed of the Cauvery was found to be silting up, while that of the Kollidam was deepening, resulting in most of the water which was required for the irrigation of Thanjavur flowing in to the sea. Much expense was annually incurred in clearing the sand out of the Cauvery bed to remedy this evil, but this and other expedients produced only a temporary improvement. At last a proposal made by Captain A. Cotton to throw an Anaicut across the head of the Kollidam was adopted.\(^73\)

Accompanied by plan on 1804 by the Superintendent of Tank Repairs Captain Caldwell corresponded with the Collector Mr. Harris on 25\(^{th}\) September 1804 for extension of irrigation. On examination it was found that the principal rivers and streams in the Thanjavur district was dependent upon the river Cauvery for its irrigation. As the district raised the crops of nanjah cultivation and as the revenue of these parts was considered very important this river was taken up for first investigation. Caption Caldwell submitted a proposal with an estimated expense of 9,941 star pagoda 13 fanam.\(^74\)


TABLE: III – 7

Statement of Estimated Expenditure in Thanjavur District

<table>
<thead>
<tr>
<th>Description</th>
<th>Star pagoda</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone work in chunam</td>
<td>6,682</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Taking up part of old work relaying in chunnam star pagoda per cubic feet</td>
<td>1,670</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Carried Over</td>
<td>8,353</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Brought over</td>
<td>8,353</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>To rough casting the whole with water, chunnam tiles, dust, sand and rough gravel and 4 inches thick squares of 10feet; 752 star pagoda per square</td>
<td>1,128</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>To cutting, transporting and fixing 360 up straight dam stones at 1 star pagoda each</td>
<td>360</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>To 1 maistry for six months at wage per month</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>To 1 Accountant for six months at wage per month</td>
<td>30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>To 2 peons for six months per month</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total star pagodas</td>
<td>9,941</td>
<td>15</td>
<td>-</td>
</tr>
</tbody>
</table>


In 1804 the repair and improvement proposed by the Superintendent of Tank Repairs was sanctioned by the governor in council. The execution of those works cost a sum of 2,553 star pagodas and fanam 9.\(^{75}\)

Kollidam formed the northern boundary of the district and was hardly of any use to the cultivators and hence it was necessary to raise its bank for a distance of seventy five miles. And to the Cauvery the same measure was adopted to the extent

\(^{75}\)Board of Revenue Consultation, Vol.398, dated: 26.11.1804, p. 11305.
of one hundred & fifteen miles. Kollidam and Cauvery were two out of fourteen great rivers connected with this district.\textsuperscript{76}

\begin{table}
\centering
\caption{III - 8}
\caption*{Extension of Cauvery and Kollidam}
\begin{tabular}{|l|c|c|}
\hline
Names of the Taluks & Number of yards in length to which the work of raising the bank was carried & Number of miles \\
\hline
Trivady & 3,77,635 & 2073/4 \\
Kombakonam & 2,38,391 & 131 1/8 \\
Mayawaram & 4,66,532 & 256 ½ \\
Trivalore & 409,539 & 225 ¼ \\
Keevalore & 3,01,217 & 166 \\
Mannargudy & 2,74,589 & 151 \\
Papanasum & 1,05,576 & 58 \\
Nannilam & 55,830 & 30 ¾ \\
Total & 22,29,309 & 1,226 3/8 \\
\hline
\end{tabular}
\end{table}


Wallace, Collector of Thanjavur, forwarded a letter to the Board from the Superintendent of Tanks Repairs regarding a project that proposed to supply water from Kollidam into the Udayarpalayam. If the plan was executed, a full supply of water to 23 villages was expected to be ensured. When 270 cawnis of the “\textit{Nunjai Lands}” were irrigated them it was calculated that the additional supply of water would augment the cultivation to the extent of 2730 cawnis, which was expected to yield to the government in the first year of cultivation an income of 1500 Pagodas, in the second year 3100 Pagodas & in the third year 4749 Pagodas.\textsuperscript{77}

\textsuperscript{76} \textit{Tanjore District Records}, Vol.3285, p. 265.

\textsuperscript{77} \textit{Trichinopoly District Records}, Vol.3665, p. 413.
In 1808 the river Vettar at the port of Nagore breached during rainy season in several places and for fear of further damage from the floods, F. Richardson requested the Board to undertake immediate repairs. It was estimated that the expense of the repair would not exceed the sum of 70 Pagodas.\(^{78}\)

The dike constituting the separation between the Vennar & Vettar Rivers was sought to be strengthened. The bank of the Vettar was exactly the same as that of the Vennar in the Mannargudi taluk. The necessity for giving an efficient repair was emphasized to prevent too great a quantity of water passing into this river to the determent of other lands.\(^{79}\)

**TABLE: III – 9**

**Estimated expenditure for Vennar and Vettar**

<table>
<thead>
<tr>
<th>Name of the Work</th>
<th>Pagoda</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Captain Biss’s estimate to masonry</td>
<td>3,857</td>
<td>8</td>
<td>“</td>
</tr>
<tr>
<td>Earth work</td>
<td>9,980</td>
<td>“</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>13,837</td>
<td>8</td>
<td>42</td>
</tr>
</tbody>
</table>


\(^{79}\) *Tanjore District Records*, Vol.3276, p. 65.
In 1808 Wallace, the Collector of Thanjavur suggested to the subordinate Collector in the Mayavaram division about raising the banks at the head of the Munniar River at its separation from the Kollidam so as to admit free flow of water into the eastern districts dependent on that river, without inundating the lands to the westward. Therefore he sanctioned the amount of 8 pagodas per *mensum* (month) to carry out the maramath.\(^80\)

Several encroachments had been made on the heads of the rivers Cauvery, Vadavur & Veerasholen, within the limits of lands belonging to the rajah of Thanjavur. As such encroachments greatly impeded the cultivation of an extensive area and as the welfare of the country depended on the free flow of the rivers, the Collector Wallace asked the rajah to remove encroachments immediately.\(^81\)

Rs.1, 900 was spent in carrying out the masonry works for executing earthwork in Vadavaur of Thanjavur district. An outlay of Rs.28, 530 was incurred in the restoration of seventy-seven out of 172 running feet of the lower Kollidam anaicut in Thanjavur, and in extending the aprons of some of the sluices. The construction of six surplus sluices on the north, and ten on the south bank of the Kollidam, in the Tiruchirappalli District, was on hand. But Rs.7,095 had been set apart upon an estimated expenditure of Rs.20,300.\(^82\)

\(^{80}\) *Tanjore District Records*, Vol.3262, p. 80.  
In 1810 Wallace, the Collector of Thanjavur Ordered Lieutenant Johnson Superintendent of Tank Repairs, to attend to the repairing work of south banks of Srirangam, that required chunnam, jaggery, gravel & other materials to do the repairs.

**TABLE: III – 10**

**Repairs Ordered by Thanjavur Collector:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Star Pagodas</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Repair of the Cauvery bank from the head of the Island of Srirangam to the anaicut - 20630 yards in length</td>
<td>675</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>The reconstruction of six small sluices on the north bank of wootamachery Vaikal</td>
<td>295</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td>Total of star pagodas</td>
<td>971</td>
<td>2</td>
<td>60</td>
</tr>
</tbody>
</table>


In 1810 Lieutenant Johnson, the Superintendent of tank repair in Thanjavur district explained to the Collector Wallace that the unusual rains damaged the various places of and the solidity of the embankments were necessary to the future security of the banks and cultivation.

Throughout the province, the floods have caused considerable damage and the banks which resisted the unusual body of water have been weakened. The
Collector Wallace proceeds to give a detailed description of the various places affected by the floods.\textsuperscript{83}

In 1810 the sum estimated under river & large water course repairs head was 24,665 star pagodas. It included the deepening & clearing out of the beds of river & large watercourses at the estimated cost of 6929 star pagodas. The raising & strengthening their banks cost 11,958 star pagodas. The repair of breaches caused by the inundations in 1809 cost 5,551 star pagodas and the plantation of durbagrass for the rivers & fortifying their banks required 226 star pagodas.\textsuperscript{84}

In 1811 due to heavy rains and flood, the banks of the Cauvery breached in many places of the heavy rains. The Lieutenant Johnson, the Superintendent of Tank Repair, prepared the estimate and forwarded to it Wallace, the Collector of Thanjavur. The required amount of maramath repair was 26,064 star pagodas l fanam 10 casu.\textsuperscript{85}

In 1813 the Collector of Thanjavur wrote to the Collector of Tiruchirappalli to consider the closure of the caulagam at the Auganda Cauvery through which a considerable portion of water endangered the banks at Andanallore and was likely to affect the cultivation at the Lalgoody region.\textsuperscript{86}

\textsuperscript{83} Tanjore District Records, Vol.3266, p. 15.

\textsuperscript{84} Ibid., p. 87.

\textsuperscript{85} Tanjore District Records, Vol.3268, p. 96.

\textsuperscript{86} Tanjore District Records, Vol.3273, p. 171.
The Board of Revenue was repeatedly told that the repairs required in the river Cauvery, which branched out into numerous subordinate streams & channels, the beds of all of which required to be more or less cleared out every season & their banks partially raised & strengthened. Attending to the excavation work in the bed of the Cauvery & the construction of the Devanady Calingulah were cost the administration 7,076 pagodas 14 fanam and 15 paisa. The estimated and budgeted amount for the year 1814 was 30,286 pagoda, 22 fanam, and 13 paisa. The money actually granted was 29.821 pagodas, 32 fanam and 24 paisa.\textsuperscript{87}

In 1815 Jaref Hepburn, the Collector of Thanjavur, reported to the Board of his instructions to the Superintendent of Tank Repairs to the Agunda Cauvery to inspect the improvements proposed to that river. The Board knew that accumulation of sand on the bed of the Cauvery near the head of the island of Srirangam had obstructed the flow of water into the district.\textsuperscript{88}

Jarref Hepburn pressed for desilting of the Munniar River in the Thiruvaiyaru taluk leading from the Kollidam, which was caused by accumulation of sand at the head of it. As the Munniar supported ‘Nanjah’ cultivation, it was recommended to improve its formation in its course.\textsuperscript{89}

Hepburn, Collector of Thanjavur, forwarded the statement of accounts to Superintendent of Tank Repairs for the works of maramath of all description was done in his district in 1818. The statement contained the particulars of all earth works

\textsuperscript{87} Tanjore District Records, Vol.3275, p. 33.
\textsuperscript{88} Tanjore District Records, Vol.3276, p. 40.
\textsuperscript{89} Ibid., p. 52.
done in 1818, consisting of the excavation of the beds of rivers, channels, and watercourses, the repairs done by planting *durba* grass for their preservation. These works cost Rs.34, 801 pagodas 13 fanam and 1 paisa.  

**TABLE: IV - 11**

Statement of Thanjavur Irrigation Expenditure from 1826 to 1850

<table>
<thead>
<tr>
<th>Years</th>
<th>Amount including ordinary Occasional and Emergent, &amp;C</th>
<th>10 Years Average</th>
<th>6 Years Average</th>
<th>15 Years Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rupees.</td>
<td>Anna</td>
<td>Paise</td>
<td>Rupees.</td>
</tr>
<tr>
<td>1826</td>
<td>37,637</td>
<td>12</td>
<td>10</td>
<td>77,351</td>
</tr>
<tr>
<td>1827</td>
<td>29,364</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1828</td>
<td>37,251</td>
<td>9</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>1829</td>
<td>43,291</td>
<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1830</td>
<td>97,724</td>
<td>15</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1831</td>
<td>1,14,419</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1832</td>
<td>1,12,133</td>
<td>14</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1833</td>
<td>1,12,196</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1834</td>
<td>1,20,697</td>
<td>15</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1835</td>
<td>68,793</td>
<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1836</td>
<td>79,719</td>
<td>2</td>
<td>0</td>
<td>Not including cost of</td>
</tr>
<tr>
<td>1837</td>
<td>92,905</td>
<td>12</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1838</td>
<td>1,06,445</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1839</td>
<td>1,15,882</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1840</td>
<td>88,632</td>
<td>6</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1841</td>
<td>87,810</td>
<td>12</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1842</td>
<td>4,04,445</td>
<td>12</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1843</td>
<td>1,01,069</td>
<td>13</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>1844</td>
<td>1,05,582</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1845</td>
<td>1,40,958</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1846</td>
<td>95,308</td>
<td>14</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1847</td>
<td>70,103</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1848</td>
<td>95,709</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1849</td>
<td>65,316</td>
<td>11</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>1,44,053</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>


---

III

Repairs Undertaken in Southern Districts:

Due to Irrigation dispute of Coonoor, in Coimbatore district and Morawandoor, the boundary village of Tiruchirappalli, the Collector of Coimbatore, William Macleod letter was drawn dated on 27th August, 1801 to John Wallace, the Collector of Tiruchirappalli regarding that Purpose of watering lands in villages.\[91\]

To settle the disputes through the construction of a new water course in this district brought channel which passes through Worawandoor which suggested the cutting it entirely through the bounds of that village as far as Coonoor – but at the same time allowing the usual lands in Worawandoor to be first watered by it, so that it only the surplus water which reaches Coonoor. \[92\]

The sub- Collector of Bhavani George Real, in his attempt to repair the Bhavani dam before his leaving he requested the Collector of Coimbatore district, William Macleod, who ordered necessary repairs finished without delay with the support of Bhavani Tahsildar without heavy expenses. \[93\] The Tank Superintendent Mayor Caldwell directly inspected and estimated and expenditure of pagodas 13,415 fanam 26 paisa 32 to strengthen its banks. \[94\]


The Board of revenue in a letter dated on 29th August 1818, forwarded by Captain Biss, Inspector of Tank Estimates, recommended to the Governor in Council to sanction the estimated amount of 2821 star pagodas 29 fanam and 39 ¼ paisa to construct twelve bridges in Coimbatore District. The company sanctioned the amount dated on 8th September 1818 and the Collector of Coimbatore ordered the execution of the work.\(^{95}\)

The next in order was the Coonoor Anaicut. This work was in a ruinous state when surveyed it, and was restored in the years 1847 and 1848 at a cost of Rs.1,975. Below the Coonoor Anaicut were the Pareanai and Chittanai Dams, which were valuable sources to Government. There were no Anaicuts on the Vaigai River below the Chittanai, but numerous channels through temporary Coorumboos irrigated the lands either bank, and rarely any surplus of water found its way into the sea.\(^{96}\)

**Madurai District:**

The Vaigai was the main source of supply and it covered 30 square miles and emptied itself into Kaleri Tank. Just as the Ragunatha Cauvery and Narayana Cauvery with the large groups of tanks depend on one scheme of irrigation from the Gundar River. The Rajsingamangalam Tank, the Ramnad Tank and a few other tanks also depended on the Vaigai River.\(^{97}\)


\(^{96}\) *Reprint of Old Records about Papanasum Reservoir Project in Tinnevelly District*, (Tirunelveli, 1913), p. 5.

Lower down in the plains, a large number of small storage tanks, about 1665 in number existed. The surpluses of one tank flowed down to feed the next tank in the lower contour and so on. Most of them depended on the North East Monsoon to get their fill. Many of them were nearer to the river courses and got their fill from the flood flows in the river through supply channels taking off from the river on either bank. There were as many as 115 such supply channels in and around Madurai Town.\textsuperscript{98} Rajasingamangalam tank which was 9 miles long and 1 to 2 miles broad, and the Periakulam tank, 7 miles in length, were two large tanks in Madurai.

**Rajasingamangalam Tank:**

Two jungle streams called Manimuttar and Perar, which originated in the Pranmalai Hills and the plains of Padamathur in the Sivaganga Estate, respectively and a channel (Nattar) branching from the Vaigai River near Paramakudi, fed this important tank. The Nattar channel had been almost entirely silted up. There was also a drainage area of an out 147 square mile. There were 18 irrigation sluices one of which belonged to the Rameshwaram Devastanam and the rest to the Estate.\textsuperscript{99}

**Kalari Tank:**

This is one of the largest tanks in the Estate. Its main supply was from the Ragunatha-Cauvery which after feeding several large tanks finally emptied itself into this tank. It had also a drainage area of 20 square inches but without the supply from the Ragunatha-Cauvery the tank was of little use. When the court took up the Estate, the Cauvery channel from Mudukulatur to Kalari Tank had almost disappeared

\textsuperscript{98} A. Mohanakrishnan, *Selected Papers on Irrigation*, p. 54.

and this tank received hardly any supply. But later it received too much water and the
difficulty was to regulate the supply. The extent of cultivation under the tank was 68
acres. There were eight irrigation sluices to this tank, of which two were ruined and
the rest in fair order. The repair of the two ruined sluices at a cost of Rs.1, 980 and for
the other Rs.410 was done.100

De. Havilland, the Inspector of General of Tank Estimates put forward
an estimate to the Board of Revenue for the earth work repairs required to the banks
of the Gundar and Cauvery Rivers in Ramnad. The work was undertaken on 9th June
1818. The amount of Rs.6, 216 rupees, 2 anna was sanctioned by the Government for
the completion of the work.101

R. Peter, Collector of Madurai, proposed a plan to the Board for an
anaicut in the river Gundar in the Ramand zamindary in 1818.102 On 18th April 1818,
the Collector of Madurai, R. Peter, wrote a letter to the Superintendent of Tank
Repairs to make an estimate. The Collector warned that anaicut was not raised and
certain tanks repaired, before the ensuing monsoon, the land capable of yielding
11,000 kalam of seed grain would not exceed 3000 or 3500 kalam. So the Board
gave its consent to the estimated expenditure to prevent the loss of revenue to the
Company Government.103 As a result the anaicut proposed at the Ragunatha Cauvery
river in the Ramnad district dated 4th July 1819 was executed.104

100 Ibid., pp. 432-433.
103 Madura District Records, Vol.1167, p. 31.
Owing to the failure of Rain in the last three years, & no supply of water received from the Vaigai river, the Sivagangai Zamindary has suffered considerably in consequence of scarcity which circumstance induced a great number of his ryots, to abandon their villages & to emigrate into other countries. Under these circumstances, for the last two years the Zamindar of Ramnad had the necessity of borrowing much money for the payment of his kists.  

This artificial channel of Ragunatha Cauvery was constructed by Ragunatha Sethupathy, after whom it was named. The Board commenced the work of the construction of the proposed anaicut on the Ragunatha Cauvery in the Ramnad zamindary in the dry season. G.D. Drury, the assistant Collector, made the preparation of the final construction. In 1819, when the estate was brought under attachment, the Head Tahsildar Narayana Rao added another weir at a cost of Rs. 30,000 and repaired the bund as far as the Kalari tank. Narayana Rao, built a calingulah 147 feet in length and 117 breath and the number of stones used were 2250.

The Ragunatha Cauvery, proper from Kamuthi to Kalari, was 26 ¾ miles in length, and commanded about 500 square miles of the region. At Kamuthi the river Gundar was turned into the artificial channel by means of an immense anaicut or earth, more than a mile in length. Kalari was the last tank fed by the

channel and what remained of the water after feeding a large number of tanks was emptied into the Kalari tank. Nanel grass, planted near the anaicut at Kamuthi threatened to choke up the bed of the river.

About two miles to the east to Tiruchuly and at the fifteenth mile a channel called Narayana Cauvery was almost entirely silted up and the tanks it supplied were in ruins. In the present scheme it was not intended to include the repair of Narayana Cauvery, though its restoration was considered expedient.

\footnote{Ibid., p. 430.}
### TABLE: III – 12

**Expenditure of Ragunatha Cauvery**

<table>
<thead>
<tr>
<th>Taluk &amp; village</th>
<th>Measurement</th>
<th>Tank digging Work</th>
<th>Expenditure under Different Heads</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Length</td>
<td>Bread</td>
<td>Height</td>
</tr>
<tr>
<td></td>
<td>Yard</td>
<td>Yard</td>
<td>Yard</td>
</tr>
<tr>
<td>Taluk &amp; village</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particular of work required at each place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To raise embankments at the interior face of the new anaicut as it is being over flowed by the discharge from the temporary opening in the Ragunatha Cauvery</td>
<td>170</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>A temporary opening in the Ragunatha Cauvery for the discharge of the surplus water and raising a small embankments to south of it</td>
<td>140</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Rough stone revetment to a part on each side of the opening</td>
<td>140</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>3720:420</td>
<td>364:1</td>
<td></td>
</tr>
</tbody>
</table>

T. Clarke, Collector of Madurai, informed the Board of Revenue in 1835 that 2 annas per cawny was fixed on the all the cultivated lands in addition to Maramath Cess. The cost of repair (maramath) met either by the levy of a small sum annually or by each innamdar to pay certain quota of the sum spent in repairs.\textsuperscript{111}

Certain inhabitants of Ramanathapuram complained to the Board against the Collector of Madurai for having collected one \textit{kalam} of Paddy or 14 5/16 fanams for a \textit{‘Koorkom’} instead of the usual rates for the cultivation of paddy on \textit{‘Punjah’} lands. The complaint is forwarded to the Collector for his remarks. The Collector explains that since he found that the inhabitants were in the habit of diverting water from the channels to irrigate their \textit{‘punjah’} fields “which caused a deficiency in some tanks for the \textit{‘Nunjah’} fields that they neglected the \textit{‘nanjah’} fields for their \textit{‘punjah’} that they ploughed up the beds of tanks to cultivate them with paddy and that when rain fell, the soft soil was washed into the deep parts of the tanks, thereby filling them up and preventing the tanks from holding then usual quantity of water to the determent of cultivation. The Collector conserved it right that they should pay in common with other the usual \textit{‘Waram’} but since they had removed their produce and collected last year at the rate of one \textit{‘Kalam’} per \textit{‘koorkom’} at the \textit{Jamabandi} price.\textsuperscript{112}

In Madurai, a bridge of 5 arches varying from 32 to 24 feet span was built in 1848 and 1849 across the Kirtamanuddee on Road between Thirupuvanum and Tiruchuli; and subsequently in 1853 and 1854, 3 bridges were built on Road from


\textsuperscript{112} \textit{Madura District Records}, Vol.4671, pp. 9-10.
Madurai to the Port of Tondi, and paid for from the funds of the Sivagangai Zamindary. A Bridge of 11 arches of 40 feet span, was sanctioned on 27th February 1855 to be constructed across the Amaravathi River, on road between Dindigul and Palghat, and another of 6 arches of 40 feet, across the Shanmuganathi, near Palani on the same road, was built during 1856 - 1857 as per sanction of Government dated 5th July 1855.¹¹³

According to Captain Ward's Survey Account of 1815, the first person to suggest this scheme was Muttu Arula Pillai, prime minister of the Ramnad Raja, who in 1798 sent twelve intelligent men to enquire into its possibility. They reported in favor of it, but funds were lacking. In 1808 Sir James (then Captain) Caldwell, the District Engineer, reported, after examination, that the scheme was impracticable. The matter, however, continued to be discussed, and in 1882 that Colonel Pennycuick's proposal to build a masonry dam was accepted at the estimated cost of Rs.62 lakhs.¹¹⁴

The Vaigai Reservoir and Its Irrigation System:

The Origin of the Vaigai River according to traditional accounts is attributed to a certain grand cause in which Meenachi & Sundareswarer were principally concerned.¹¹⁵ As a legendary river of the Pandya Kings, it originates in the eastern slopes of the Western Ghats at an altitude of 5000' above 'Mean Sea Level' in the Varshanad hills. It flows northward. The three tributaries, Palaru, Periyaru and Koraliyaru join the Vaigai. Then the river passes through the thick

¹¹³ Reprint of Old Records about Papanasum Reservoir Project in Tinnevelly District, p. 8.
¹¹⁴ B.S. Baliga, Madras District Gazetteers Coimbatore, p. 257.
¹¹⁵ Madura District Records, Vol.1195, p. 103.
forests of Gandamanayakanur zamindary and enters the plains near Gandamanayakanur village in Periyakulam taluk. Then it flows northward and eastward and enters the Ramanathapuram big tank after passing through places like Virahanur, Tirupuvanam, ManaMadurai, Parthipanur and Paramakudi. Here there are shutters. The water overflowing from this tank goes to the Bay of Bengal near a village Athangarai, which is about 18 kms south of Devipatnam.\textsuperscript{116}

However as the channel irrigation was not available, for most parts of the district tanks, wells and small ponds had to be constructed. Both tanks and wells were more common in the Dindigul division than in the Madurai. Well cultivation was mostly confined to Tadikombu, Aiyampalayam and Nilakottai - all of which were in the Dindigul division, as the dry areas were more extensive and channel-fed wet land was minimal there. By 1822-1823, the total dry land in Dindigul was about 83.99\% of the whole, while the same in Madurai was about 70.49\% only. From the point of view of irrigation, Tirumangalam and Melur taluks were poorer in the Madurai division; Melur was poor especially because of its dependence on small ponds. On the whole, only a very limited portion of Madurai district had those conditions where land could be cultivated with adequate protection from erratic monsoons.\textsuperscript{117}

\textsuperscript{116} R. Balaji, \textit{The Vaigai Reservoir and its Irrigation System, A Paper presented at the Indian History Congress, 68\textsuperscript{th} session, (University of Delhi, 2007), p. 2.}

**Tanks and Channels:**

Except the Periyar project practically the whole of the irrigation works of the district, other than the wells, were made in the days of native rulers. Old manuscripts say that very many of them were constructed by the numerous palayakkarars among whom the country was divided up, and there is no evidence of the central government at Madurai having constructed any of them. The Cumbum and Daroji tanks for instance—where a great embankment has been thrown across a valley and a whole river dammed back. The largest scheme across the Vaigai was the Peranai anaicut which has now been replaced by the regulator which controls the irrigation from the Periyar. Except this Periyar project, there is not a single work in entire Madurai. Statistics of the Revenue department show that out of a total of 4,580 minor works, no less than 2,846 irrigate less than ten acres, and another 1,142 water more than ten but less than 50 acres.\(^{118}\)

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# TABLE: IV – 13

Minor Irrigation Works of Madurai Districts:

<table>
<thead>
<tr>
<th>Basin</th>
<th>Minor Basin</th>
<th>River</th>
<th>Number of Government Anaicuts</th>
<th>Number of Government Works</th>
<th>Irrigable Ayacut in Acres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Gundar</td>
<td>Tirumangalam</td>
<td>Gundar</td>
<td>5</td>
<td>193</td>
<td>25,626</td>
</tr>
<tr>
<td></td>
<td>Sivarakottai</td>
<td>Kavundanadi</td>
<td>9</td>
<td>97</td>
<td>7,374</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Varattar</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lower Gundar</td>
<td>Kritimanadi</td>
<td>Vaigai</td>
<td>---</td>
<td>38</td>
<td>12,842</td>
</tr>
<tr>
<td></td>
<td>Palani</td>
<td>Shanmuganadi and its tributaries</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Varadamanadi</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palar</td>
<td>2</td>
<td>45</td>
<td>13,738</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Porandalar and</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pachaiyar</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nallatangi</td>
<td>Nallatangi and a Tributary.</td>
<td>3</td>
<td>5</td>
<td>478</td>
</tr>
<tr>
<td></td>
<td>Nanganji</td>
<td>Nanganji</td>
<td>4</td>
<td>18</td>
<td>1,533</td>
</tr>
<tr>
<td></td>
<td>Lower Kodavanar</td>
<td>Kodavanar and triburaries</td>
<td>3</td>
<td>293</td>
<td>2,466</td>
</tr>
<tr>
<td></td>
<td>Dindugul</td>
<td>Kodavanar and Tributaries</td>
<td>18</td>
<td>1033</td>
<td>13,965</td>
</tr>
<tr>
<td>Upper Vaigai</td>
<td>Suruli</td>
<td>Suruli</td>
<td>14</td>
<td>67</td>
<td>12,100</td>
</tr>
<tr>
<td></td>
<td>Periyakulam</td>
<td>Varahanadi and tributaries</td>
<td>13</td>
<td>75</td>
<td>8,132</td>
</tr>
<tr>
<td></td>
<td>Andipatti</td>
<td>Vaigai and tributaries</td>
<td>3</td>
<td>13</td>
<td>1,146</td>
</tr>
<tr>
<td></td>
<td>Vathalagundu</td>
<td>Manjalar and tributaries</td>
<td>19</td>
<td>44</td>
<td>4,471</td>
</tr>
<tr>
<td>Mid Vaigai</td>
<td>Solavandan</td>
<td>Vaigai</td>
<td>---</td>
<td>223</td>
<td>9,061</td>
</tr>
</tbody>
</table>

Thirunelveli District:

The most important River of the district is the Tamiraparani. It has an almost perennial stream. Its principal tributary is the Chittar. It is crossed by eight anaicuts, out of which 7 Anaicuts were constructed by early rulers. The last of the anaicut Srivaikundam anaicut was constructed by local British ruler. The Vaipar, with its tributaries the Arjunanadi and the Sattur River, is a stream of some size.\footnote{Reprint of Old Records about Papanasum Reservoir Project in Tinnevelly District, p. 6.}

The British Government examined the course of the Tamiraparani above Sorimuthu Ayyanar Koil to ascertain the practicability or otherwise of storing up its waters, so as to form an inland lake in the manner proposed by Colonel Cotton. The report recorded about the river as detailed below: “The Tamiraparani is composed of two principal branches, which unite at the foot of the waterfall called Vanatirtum, 3 ¾ miles west of Sorimuthu Ayyanar Koil. The larger of the two branches rises in the main chain of ghats and flows almost to south with a rapid current for a distance of about 10 miles through a densely wooded valley, and then turns east for a further distance of 4 miles till at length it precipitates itself over a ledge of rock 100 feet in height into a basin below, and thence by a succession of minor falls, amounting in the aggregate to 200 feet, to its junction with the other branch called the Pambaur. The Pambaur takes its rise in the ghats immediately to the south of Augustia Mallay, misnamed “Coochy Mallay” in the printed map, and after breaking through an intervening range of hills, in doing which it forms an exceedingly fine cataract known as the “Pamban aruvey,” it flows in a north –north-easterly direction about 6 miles to
its junction with the Tamiraparani, or main branch. Throughout the whole of its course thus far it has a very considerable fall.\textsuperscript{120}

The Governor in Council had authorized based on the recommendation of the Board, the repair of the Marudur anaicut in Tirunelveli district in 1803, at the expense of 2,845 star pagodas, 24 fanam and 15 paisa.\textsuperscript{121} The Collector discovered that in 1807 the Marudur dam which fed sixty miles of channels and two dozen tanks in the eastern Tamiraparani valley.\textsuperscript{122}

During the interval between reaping of the pasanam and the sowing of the car corps, the influx of sand and mud from the river was so great that the repair of them was necessary every year. Neglected for 1 year few of the banks of the tanks in Tirunelveli were extremely liable to be damaged during the heavy rains. In 1804 J. Cochrane Collector of Tirunelveli, requested for sanction of Government for executing the repair so that the breach was averted.\textsuperscript{123}

The tanks and channels of the Tamiraparani River were choked with mud and sand by the rainy season. For clearing then 8000 pagodas were usually required. The Collector Hepburn presented to the Board the budget in 1807.

\textsuperscript{120} \textit{Ibid.}, p. 10.
\textsuperscript{121} \textit{Madura District Records}, Vol.1188, p. 116.
\textsuperscript{122} David Ludden, \textit{Peasant History in South India}, p. 142.
\textsuperscript{123} \textit{Tinnevelly District Records}, Vol.3599, pp. 96-97.
Statement of Sums Required for Clearing Channels of Mud and Sand in
Tirunelveli Region for the Year 1807.

<table>
<thead>
<tr>
<th>Name of the taluks</th>
<th>Star pagodas</th>
<th>Fanam</th>
<th>Casu</th>
<th>Chucks</th>
<th>Fanam</th>
<th>Casu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheranmahadevi</td>
<td>900</td>
<td>-</td>
<td>-</td>
<td>1,485</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kadayam</td>
<td>700</td>
<td>-</td>
<td>-</td>
<td>1,155</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vedugramam</td>
<td>500</td>
<td>-</td>
<td>-</td>
<td>825</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nellyambalam</td>
<td>200</td>
<td>-</td>
<td>-</td>
<td>330</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Palyamkottai</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>115</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Thachanallur</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>165</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Bramadesam</td>
<td>450</td>
<td>-</td>
<td>-</td>
<td>742</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Thenkasi</td>
<td>450</td>
<td>-</td>
<td>-</td>
<td>742</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Srivilliputtur</td>
<td>1,000</td>
<td>-</td>
<td>-</td>
<td>1,650</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Sankarancoil</td>
<td>190</td>
<td>-</td>
<td>-</td>
<td>313</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gangaikondan</td>
<td>400</td>
<td>-</td>
<td>-</td>
<td>660</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Srivaikundam</td>
<td>700</td>
<td>-</td>
<td>-</td>
<td>1,155</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Athoor</td>
<td>300</td>
<td>-</td>
<td>-</td>
<td>495</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Tuticorin</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>115</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Calacaud</td>
<td>800</td>
<td>-</td>
<td>-</td>
<td>1,320</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Karasery</td>
<td>200</td>
<td>-</td>
<td>-</td>
<td>330</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Alwar Thirunagari</td>
<td>900</td>
<td>-</td>
<td>-</td>
<td>1,485</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Punjamahal</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>115</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,000</strong></td>
<td>-</td>
<td>-</td>
<td><strong>13,200</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


In 1808 the Superintendent of Tank Repairs reported upon the state of several anicut as follows: ‘Paroovoor is second in importance to Marudur and is situated on the river Tamiraparani. Its length is 2,433 feet across the river. Little less than the entire re-construction of this work is necessary to restore it to a permanent state but it would involve a very great disbursement and the estimate is, therefore, continued to partial repairs of such parts as appear absolutely necessary’.\(^{124}\)

Marudur Anaicut:

In 1818 J. Cotton, the Collector of Tirunelveli addressed a letter to the Superintendent of Tank Repair Southern Provinces, that part of Kalakadu taluk had for some seasons suffered severely from drought. The Marudur anaicut commenced from the bottom of the Ghats at Kalakudu about 4 ½ on miles, and extended 1 ½ miles at the foot of mountains to carry the water from there to a place where it joined the Manimutharu River which ran into the Tamiraparani west of Ambasamudhram.\\(^{125}\)

The Palavur Anaicut:

The Palavur anaicut, situated in the village of the same name (Tirunelveli taluk), gives off the Palaiyan channel 27 miles long, from the right bank of the river. At Tirunelveli taluk the Pachaiyar enters the channel, a surplus weir was provided to carry off the flood water. Eleven Tamil inscriptions set in the anaicut of record the restoration piece by piece from fasli 1219 to (A.D. 1809 to 1820) of the left flank of the work. The name of two Collectors are inscribed: against 1808 Mr. Hepl and against 1820 Mr. Hudleston.\\(^{126}\)

Other Tanks of importance in the region were the following


\\(^{125}\) Tinnevelly District Records, Vol.3595, p. 104.
\\(^{126}\) H.R. Pate, Tinnevelly district Gazetteer, p. 172.
De. Havilland, inspector of Tanks Estimates, prepared a plan and estimated for the repair of two anaicuts of Thuvarangadoo and the Veeranam Anaicut in the sequestered zamindary of Uthumalai in the Tirunelveli district at a cost of Rs.3,371 rupees, 8 anna and 6paisa.\textsuperscript{128}

\textsuperscript{128} Board of Revenue Consultation, Vol.819, dated: 01.04.1819, p. 2745.
### TABLE III - 15

**Estimate of the Expense of Maramath Works for Construction and Repair of Thirvarangadu Anaicut in 1819**

<table>
<thead>
<tr>
<th>Name of the Zamindari Village</th>
<th>Brick in chunam Amount in star pagodas</th>
<th>Rough stone with or without chunam Amount in star pagodas</th>
<th>Rate of work per foot</th>
<th>Amount in star pagodas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thirvarangadu Anaicut across the Chittar River</td>
<td></td>
<td></td>
<td>1 ½</td>
<td></td>
</tr>
<tr>
<td>To repairing Breach in the body of the work - foundation work</td>
<td>110</td>
<td>7</td>
<td>11 ¼</td>
<td>8662 ½</td>
</tr>
<tr>
<td>To repairing breach above in the body of foundation work</td>
<td>85</td>
<td>5 ¼</td>
<td>1</td>
<td>577 ½</td>
</tr>
<tr>
<td>To lengthening the western wing with rough stone in chunam</td>
<td>385</td>
<td>2</td>
<td>5</td>
<td>3850</td>
</tr>
<tr>
<td>To constructing a wall in front of the old work - brick in chunam</td>
<td>500</td>
<td>10</td>
<td>10</td>
<td>5000</td>
</tr>
<tr>
<td>To constructing a wing at the eastern end with brick in chunam</td>
<td>1350</td>
<td>30</td>
<td>2 ½</td>
<td>1350</td>
</tr>
<tr>
<td>Rough stone without chunam to support the new work in breach</td>
<td>3000</td>
<td>10</td>
<td>2 ½</td>
<td>3000</td>
</tr>
<tr>
<td>Total</td>
<td>20715</td>
<td>421</td>
<td>17 ½</td>
<td>18210</td>
</tr>
</tbody>
</table>

**Source:** Board of Revenue Consultation, Vol. 819, dated: 01.04.1819, p. 2743.
## TABLE: III - 16

**Nunjah Land Dependent on the Thuvarangadu and Veeranam Anaicuts in the Uthumalai Zamindary (1817) Cultivation and Collecting of Revenue.**

<table>
<thead>
<tr>
<th>Name of the anaicut</th>
<th>Name of the village</th>
<th>Total extent of Nanjah land</th>
<th>Extent of cultivation of one year</th>
<th>Extent of cultivation in 1817</th>
<th>Jumma amount in 1817</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cottah</td>
<td>MC</td>
<td>MC</td>
<td>Cottah</td>
</tr>
<tr>
<td>Thuvarangadu anaicut</td>
<td>Vellacaul</td>
<td>251</td>
<td>14</td>
<td>3 5/8</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>Rajapandy</td>
<td>168</td>
<td>4</td>
<td>4 1/2</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Kalaneer Kulam</td>
<td>100</td>
<td>10</td>
<td>-</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Mela Vellacal in the Srivaikundam taluk</td>
<td>100</td>
<td>14</td>
<td>3 1/4</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>621</td>
<td>1</td>
<td>3 3/8</td>
<td>410</td>
</tr>
<tr>
<td>Veeranam anaicut</td>
<td>Veeranam</td>
<td>1027</td>
<td>18</td>
<td>7</td>
<td>736</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1648</td>
<td>20</td>
<td>2 3/8</td>
<td>1147</td>
</tr>
</tbody>
</table>

Source: *Board of Revenue Consultation, Vol.819, dated: 01.04.1819, p.2744.*
The Collector of Tirunelveli, B. Hudleston, forwarding a letter from the VenkataRao, the former head *sheristadar* of this district to the R. Clarke, the Secretary of Board of Revenue and statement of the estimated amount of the repairs to be executed in the village of Pillaiyarkulam. Estimate for repairing a *nullah* to Pillaiyarkulam was granted to VencataRow, late head *sheristadar* of the Tirunelveli province in 1823.\(^\text{129}\)

Another estimate made on 13\(^\text{th}\) February 1823 for repairing an annicut situated in Chiranathi river in the vicinity of Pillayarkulam was sanctioned. Chithranathi meaning beautiful river was the affluent of the Tamiraparani.\(^\text{130}\)


### TABLE: III – 17

**Estimate of Repairing an Annicut in Chiranathi River Nearby**

**Pillayarkulam**

<table>
<thead>
<tr>
<th>Cubic Yard</th>
<th>Estimate Work in Chunam</th>
<th>Brick in Chunam</th>
<th>Price Per yard</th>
<th>Amount of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic yard</td>
<td>A</td>
<td>A</td>
<td>Rs A P</td>
<td>Rs A P</td>
</tr>
<tr>
<td>For Repairing nullah</td>
<td>40 14 ,, ,, 5 14 6</td>
<td>241 6 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaicut situated across the Chitra Nathi River</td>
<td>,, ,, 390 12 1 12 10</td>
<td>704 2 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>945 9 3</td>
</tr>
</tbody>
</table>


Six bills for work performed to tanks and water courses in Tirunelveli district during the year 1822, in the aggregate amounted to Rs.19, 860 rupees, 15 anna and 11 paisa.\(^{131}\)

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\(^{131}\) *Board of Revenue Consultation*, Vol.1015, dated: 24.03.1825, p. 2734.
### TABLE: III – 18
**Estimate for Execution of Different Types of Works in Tirunelveli District.**

<table>
<thead>
<tr>
<th></th>
<th>Amount of accompanying bills</th>
<th>Amount of sanctioned estimates</th>
<th>Balance for unexecuted works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs.</td>
<td>A</td>
<td>P</td>
</tr>
<tr>
<td>Statement of ordinary masonary works executed under balance of sanctioned estimates vide report dated 12th August 1823.</td>
<td>2927</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Bill for occasional work performed under estimates sanctioned on 30th November 1824.</td>
<td>3625</td>
<td>1411</td>
<td>-</td>
</tr>
<tr>
<td>Ordinary masonary work for Pillayarkulam shortirium village sanctioned on 30th November 1824.</td>
<td>165</td>
<td>10</td>
<td>--</td>
</tr>
<tr>
<td>Ordinary earth work for Pillayarkulam shortirium village sanctioned on 30th November 1824.</td>
<td>145</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Bill for ordinary earth work executed under estimates sanctioned on 30th November 1824 amounting to Rs. 46703 – 5” inclusive of masonary.</td>
<td>8,466</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Extraordinary work performed in 1824.</td>
<td>4529</td>
<td>8</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>19860</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: *Board of Revenue Consultation*, Vol.1020, dated: 12.05.1825, p. 4372.
According to a complaint given in 1825 to the Zamindar of Chokkampatti by the inhabitants of Puliyankudi. The Zamindar had deepened and formed a channel diverting water from Manikannda perikulam to his tank Samuttrakulam resulting in the denied of water to their tanks at Elanthakulam. The Collector of Tirunelveli appealed to Zamindari to stop that practice. The Zamindar in his answer stated that the channel was an old established one that his tank Samuttrakulam had always been fed with water by this channel and 400 Cottah of grain depended on it and therefore the request of the inhabitants be rejected. 132

The cultivation of lands in Achempudur and Malayamkulam villages in the Shenkottai District suffered from the stoppage of water works in view of opposition by the Shenkottai inhabitants in 1828. VenkataRao, Diwan of Thiruvananthapuram, got the permission to the Tasildars of Thenkasi and Shenkottai taluks to allow the works to be completed without further delay. He sought the support of the Collector of Tirunelveli. 133 In consequence, the Collector of Tirunelveli G.D. Drury instructed officials of Thenkasi not to offer any opposition whatever to the completion of the work. 134 The Collector suggested that in future whenever water works of improvement made by the Travancore Government on lands every assistance would be afforded from this office.

In 1828 the Tahsildar of Sengottai based on complaint made to the police officer of Thenkasi by the Vakeel of Moodaliapillay Rowton, the son of

132 Timnevelly District Records, Vol. 4364, p.95.
133 Timnevelly District Records, Vol.4363, p. 231.
134 Ibid., p. 235.
Mahomed Ismail Rowton of Thenkasi that Achempudur Pichandi Thevan and other persons of Sivanalore Village had commenced cutting a channel to carry the water from Pudukulum tank through Vanangaram village belonging to Modaliapillay Rowton. On Collector’s order, a peon was sent with summons requiring of Pichandi Thevan & other 10 persons to attend an enquiring. The Company investigated on the spot and arranged the supply of water to Sivanalore village.

Subsequently the place, was surveyed it was found that there existed a watercourse on the western side of the ‘Punjai land, taken are by the Company wherein Modaliapilly had built some houses in the said Company land and got some persons to reside therein, and turned the course of the water to the eastward, in consequence of which the lands belonging to the sarkar were destroyed. In order to prevent this Peyandy Thevan & other persons dug a channel to the eastward of Vavanagaram habitation and to the westward of Pudukulum tank, but not in the limits of the Company. It was likewise discovered that the said Rowton had built some houses and a temple in the sarkar ground and collected the revenue thereof.\textsuperscript{135}

The inhabitants of Cheranmahadevi could not be persuaded to overcome the prejudices which they entertained against the completion of the work commenced by the Travancore government on the Kannadian canal.\textsuperscript{136} The Kannadian Anaicut was rebuilt in 1842 and that of Suthamalli had extensive repairs twice, viz, in 1842 and in 1855.\textsuperscript{137} The Collector held discussion with the Company’s

\textsuperscript{135} *Tinnevelly District Records*, Vol. 4367, pp. 59-60.

\textsuperscript{136} *Tinnevelly District Records*, Vol. 4363, p. 239.

officers as well as inhabitants of Cheranmahadevi and settled this matter justly and to the satisfaction of all parties. But the inhabitants of Cheranmahadevi were thought to be unjustly obstinate.\textsuperscript{138}

Manur anaicut tank consisted of a spacious reservoir, a channel of supply from the river chittar, which was 22 miles in length. Its description as recorded in British records in: “This is a project of great antiquity. The dike of the tank is a stupendous work about 4 miles in length. It possesses a decayed \textit{calinguleh} situated at its southern extremity and six large stone sluices of handsome construction, four of which still appear in good condition. The anaicut or dam across the river Chittar is a work of considerable magnitude and manifests much enterprise on the part of the projector, who is said to be one of the anaicut Rajahs. Very little repair is required to the dike of the great Manoor reservoir, the construction of which is sufficiently spacious to ensure its security for many ages.\textsuperscript{139} They are all built of solid masonry and some of them have received extensive repairs during the last fifteen years. Considerable improvements are under progress at the present time to the Manoor channel, in continuation of work performed in the years 1853 and 1854, with a view to secure a better supply of water for the Manoor Tank.”\textsuperscript{140}

During the early nineteenth century, of three thousand tanks counted in the district in 1850, 83\% were listed as government repaired. Despite floods, silting, breaches, and deterioration, farmers who used the Tamiraparani water always had an

\textsuperscript{138} \textit{Ibid.}, p. 244.

\textsuperscript{139} \textit{Tinnevelly District Records, Vol.3568}, pp.192-193

\textsuperscript{140} \textit{Reprint of Old Records about Papanasum Reservoir Project in Tinnevelly District}, p. 6.
incentive to get repairs done immediately and investors were in plenty with cash to do the job. Yet, as David Ludden observed, “Constant use renders complete reconstruction, impractical, as in the case of the Marudur dam, so riverine irrigation always needs repair. Patched perpetually, it worked, always crying out for improvement. A small tank, by contrast, when fed by monsoon rains alone, might receive enough water for a paddy crop only one year in three; even in perfect condition it might not be able to irrigate one acre. Sufficient water to test its strength might arrive only one year in ten, so that defects and decay might go undetected until a flood broke the tank wall. Damage would then require a relatively large investment, yet given its insecurity and isolation, the tank might not attract investors for the task.”¹⁴¹

The best endowed villages along the Tamiraparani, however, were in the strongest position in every way to attract investors. The tank at Adaichani, near Brahmadesam, in the western valley, steadily increased its irrigated acreage before 1850, with the help of regular private and government investment. When the Kadamba tank, across the River of Srivaikundam, broke under floods in 1796, however, though officials made some effort, neither the tank nor its feeder channels were repaired for many years because of a decay in water supplies from the Marudur dam that made investment in the eastern valley unremunerative. It was to reverse this situation that Horsley planned the Srivaikundam dam project. It worked because the landowners at Sivalapperi, raised Rs.10,000.¹⁴²

¹⁴¹ David Ludden, Peasant History in South India, p. 146.
¹⁴² Ibid.
On the Tamiraparani above the Srivaikundam anaicut system, which is
dealt with elsewhere, are the Marudur and six other anaicuts. There are also a large
number of tanks fed by Rivers and streams. In the Tirunelveli district, a new anaicut
across the Tamiraparani at Srivaikundam estimated to cost Rs. 3, 84,172 and the
construction of four different lines of road at an outlay of Rs. 1, 71,934.\textsuperscript{143}

\textsuperscript{143} \textit{Reprint of Old Records about Papanasum Reservoir Project in Tinnevelly District}, p. 12.