CHAPTER – 2

THE COLONIAL POLICY PURSUED BY THE BRITISH
The prosperity of Indian agriculture depended on the success or failure of monsoons.\(^1\) This was because 80% of the total cropped area in the country directly depended on rains. If the rains failed, the agricultural operations got slowed down and thereby the entire economy was in a shambles. That is why it has been said, "Indian agriculture is the gamble of the monsoons". The cultivation in areas of less rainfall and drier parts are managed by stored supplies of rain: water from wells, tanks, and reservoirs.\(^2\)

In early times the Indian rulers gave an important lead to the construction of great irrigation works. The important construction dating back to the time of the early rulers was the Kambukal canal from the River Palar in the Chengalpattu district. It was 50 to 60 miles long, extending from an anicut 20 or 30 miles west of Kanchipuram to the sea, feeding innumerable tanks throughout the district. The Tungabudra channel which formed the basis of Cotton's Kistna Canal has been attributed to Krishna Deva Raya (sixteenth century). Absolute neglect for three centuries reduced most of it to ruins, but these ruins served to indicate that it was originally a work of great magnitude and utility.\(^3\)

We shall discuss here the concept of colonialism in various stages and its nature. Since different policies and methods were adopted for political domination

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and appropriation of Indian economic surplus, there were sharp and qualitative
Differences between different stages.⁴

I

The East India Company Administration:

The East – India Company was formed in 1600 by a group of
Merchants, mariners, explorers, and politicians. It transformed South Asia between
1600 and 1800 as it created new channels of intra – Asian trade bringing Persia, India,
China and Indonesia closer than ever before.⁵

The British rule of the Tamil country as part of the Madras Presidency
lasted for 147 years which can be divided into an earlier period of 57 years (1801 -
1857) when the East India Company governed it and the later period of 90 years
(1858 - 1947) during which the British Crown ruled through its Viceroy from the
Indian Imperial Capital, first Calcutta and then (New) Delhi, But there was a local
capital of the Presidency, namely Madras from where the Presidency was governed by
a Governor subject to higher authorities elsewhere.⁶

⁴ R.C. Veramani, Colonialism and Nationalism in India (New Delhi: Gitanjali
⁵ Tirthankar Roy, Gurcharan Das, The East India Company: The World’s Most
The meaning of the word Colony was applied to signify the country or place where colonists settled. The word colony refers to a country, either wholly or partly colonized. That is possessed and developed by people or the descendants of people, of another country but remaining subordinate to their mother-country.\textsuperscript{7}

The British extended their rule over south India, with a complex variety of land systems. The essential procedures of the \textit{ryotwari} system had already been laid down in the first settlements introduced between 1792 and 1822. According to this system, each field was to be surveyed, its output estimated and then converted into cash. Each field was registered in the name of a peasant, sometimes referred to as the \textit{pattadar}, who was directly responsible for payment of the revenue to the government.\textsuperscript{8}

The Company administration also created \textit{zamins} and followed permanent land revenue settlement there. In Tamilnadu the erstwhile palayams were converted into zamins. In both ryotwari tracts and zamindari areas, the District Administration had the power to auction off the land for the arrears of land tax. In case of total bankruptcy, the zamindari management was taken over by the District Collector. On such estates coming under Government management, the district officers had opportunities for more closely investigating the causes which led their owners into bankruptcy. The grant of revenue remission was rare and even there the remission given was inadequate. In 1816, the assessment in the southern districts was


reduced generally by 10%; and the Collector was empowered to make a discretion al reduction not exceeding 30%. These benefits touched the ryotwari lands only. As the zamindars were paying the *peshcush* (tax) in a fixed amount, the remission did not apply to them.\(^9\)

In principle, the land revenue was generally fixed at half the gross produce on unirrigated (‘dry’) lands and three-fifths on irrigated (‘wet’) lands. Higher rates were levied on the gardens or improved lands, where high-value crops were grown. More accurately, the 'wet' lands were those irrigated by public waterworks, such as government canals or village tanks. 'Dry' lands were irrigated by privately-owned wells. But various deductions were allowed for seasonal fluctuations. It was estimated that after these deductions from the land revenue, it amounted to one-third of the gross produce on dry and two-fifths on wet lands.\(^10\)

The incidence of the land revenue varied enormously from district to district, and indeed from village to village, since the revenue administration was often arbitrary. There were unrecorded depredations of revenue officials. The cultivator was thus often left with pitifully little; the Board of Revenue itself admitted in 1818 that the cultivator often got only a fifth of the crop or less.\(^11\)

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In 1822, the land revenue was lowered in theory to 50% of the gross produce of the wet lands and 33% of the dry, but in practice the traditional rates recorded in the village registers, which were often well above the official rates, were adopted. Further, since the settlements of land revenue in money were fixed for thirty years, the prolonged fall in prices between 1825 - 1826 and 1853 - 1854 had increased the real burden of the land revenue on the peasants.\textsuperscript{12}

Before 1822 a peasant had to continue to pay the land revenue on a plot once he was registered as its occupant, whether it was cultivated or not. Sometimes, Collectors forced villagers, who had fled, to return to cultivate their lands. The transition from the collection of land revenue in kind to collections in cash forced the peasant into the market. As a result he had to sell part of his crop to the merchant for cash and since his surplus above subsistence was very low. If crops failed, he fell into debt and ultimately became landless.\textsuperscript{13}

In the traditional land system in India, the land belonged to the peasantry and the king received a share of the produce. The customary share of the king was 1/6 to 1/4 of the produce. During Mughal period, the assessment of land revenue was made more systematized and standardized. According to K. Mukerjee, during Mughal period, zamindari was developed as an intermediary but the hereditary, permanent and long established right of the peasant in the soil was recognized. The revenue farmer’s duty was to collect and transmit the revenue to the

\textsuperscript{12} Ibid., pp. 219 – 220.

\textsuperscript{13} Ibid.
ruler. zamindars and jagirdars did liaison between the state and the peasant. In other words the zamindar was not proprietor of the land. The land still belonged to the peasantry, which enjoyed the hereditary occupancy right. Rent could not be increased arbitrarily nor could the land be purchased or sold. In short, land never passed out of the hands of the peasantry before the advent of the British. The absence of private property in land was the key to the whole pre-colonial system.

During British rule, the farmers desirous of constructing tanks or wells at their own expense had to apply to the district Collector for his permission. If any ryot dug a well or built a tank without Collectors permission, he shall be charged upon the land which may be watered from such work, the same assessment as would be payable from the government sources of irrigation.

II

In 1800 there were extensive uncultivated lands in the Presidency. Much of them remained under forest. At the beginning of the Company's rule there were many obstacles to increasing yield per acre. The high cost of transport and absence of the markets were amongst the main barriers to increasing agricultural incomes. The vast majority of the population lived in villages. The urban population was small by comparison. But the urban elite maintained important social, economic, and political ties with the countryside to secure the regular supply of agricultural

14 R.C. Veramani, Colonialism and Nationalism in India, p. 70.
15 Ibid.
goods that sustained city life. Yet clear cultural, social, economic, and political distinctions were made between town and country.\textsuperscript{18}

The system developed under British necessitated the construction of tanks and water works at a considerable expense. In this context, the cultivators were charged with moderate revenue and were given hereditary land rights.\textsuperscript{19} As R.C. Dutt pointed out, the imperials is to regarded the colonies and possessions abroad as natural markets for the manufactures of the home country (England) and as the natural source of supply of the raw material and specialized goods required by the economy of the home country. Dutt maintained that the apparent change was brought about by the adoption of free trade principles.

Irrigation gave security to agriculturists and made agricultural production larger and more diverse. While both railways and irrigation demanded large investment of capital resources, the former exposed the economy to further and more intensive exploitation, and the latter provided, by contrast, the only means by which the base of the economy could be made wider and more secure. This reasoning was at the root of the opposition to heavy expenditure incurred on rapid expansion of railways instead of concentrating on the expansion of irrigation works.\textsuperscript{20}


\textsuperscript{20} Romesh Dutt, \textit{The Economic History of India, Vol:I} (New Delhi: Ministry of Information and Broadcasting Government of India, 1963), p. XVI.
An important feature which characterized the irrigation works of the Madras Presidency was the numerous small works. The extent to which it had been carried out throughout all the irrigated region of the Madras Presidency was really extraordinary. A rough estimate is that the number of tanks in good condition in the Presidency was not less than 40,000. Ten thousand more were in a state of neglect and so there were 50,000 in all.\(^{21}\) It is said that the total length of the embankments of these tanks of the Presidency was roughly 30,000 miles. The revenue derived from them was roughly estimated at Rs.150 lakhs and the area irrigated at nearly three million acres.\(^{22}\)

The Chief Secretary A.D. Campell of the East India Company communicated a copy of the rules relating to the tank department for the district Collector’s guidance. The rules provide instructions to be observed for the proper conduct of works in the department. The Collectors were directed to conduct all correspondence in respect of estimates or actual charges on tank irrigation, repair of roads and *choultries* through the Inspector of Tank Estimates.\(^{23}\)

Tamilnadu's *yeris* were irrigation tanks that watered nearly one-third of the irrigated area. They played an important part in preventing soil erosion, floods, water runoff and the consequent wastage and in recharging groundwater. The *yeris*  


\(^{22}\) *Ibid.*

helped to maintain local biodiversity. Most importantly, they facilitated the cultivation of paddy, which is a water-intensive crop. Till A.D. 1600, peasants used the local resources to maintain the yeris locally. Till the eighteenth century, 4 to 5% of the gross produce of each village was set aside for the maintenance of the yeris, including regular desilting, and maintenance of the inlets and irrigation outlets. Manyams or lands free of revenue were assigned for the maintenance of the yeris and the functionaries responsible for their maintenance. Kudimaramath was the traditional community-based system devised for the maintenance of the yeris.\textsuperscript{24}

The Maramath Department was practically in charge of the great majority of public works of all kinds and was thus a very important department of the government in the early British period. The English Collectors assumed the charge of works of irrigation along with that of collection of land revenue. As the maintenance of the irrigation works in good condition was essential to the guarantee of revenue, large sums were spent on that account. Engineering Officers were appointed afterwards under the title of “Superintendents of Tank Repairs” to aid the District Collectors.\textsuperscript{25}

Government activities being thus limited, the maintenance and upkeep of irrigation works depended largely on private efforts. People voluntarily did some small repairs on which their cultivation depended, and which could easily be done in their spare time; while the fact that they could expect no remission of the land revenue


if crops were lost owing to their neglect acted as a further spur. On the other hand the alien Government was not prepared to undertake repairs of innumerable small works scattered all over the country.\footnote{26 A. Sarada Raju, \textit{Economic Conditions in the Madras Presidency 1800 – 1850}, pp. 124-125.}

Before the British occupation, this system, known as Kudimaramath, was fully recognized, and indeed absolutely necessary. For if the Company during the first few decades of its power did little, their predecessors the Nawabs did less for the restoration of tanks and channels.

No doubt special officers were sometimes appointed for the purpose of exacting labour—as may be surmised from the existence, in the British period, of certain free-holds termed (Inam for driving channel-men).\footnote{27 \textit{Ibid.}} But compulsion could not have played a large part for self-interest would ensure the preservation of irrigation works.

Even after the advent or the British, Kudimaramth prevailed for some time, the Tahsildars being expected to enforce it. The village peon, \textit{toti}, \textit{taliari} and others had to watch the tanks and watercourses and as soon as any damage was discovered, the Tahsildars called out the ryots of the village or villages concerned.\footnote{28 \textit{Ibid.}}
But with the decay of village corporate life and the weakening of the power of village officers, Kudimaramath fell into disuse. Further, the Company assumed an increasing responsibility for irrigation during the later stages of their administration, while the ryots' activities in that direction diminished correspondingly.

In zamindari areas also, Kudimaramath continued in full vigor. Here irrigation works were always carefully attended to both by the tenants and the zamindars, and the " parched and arid" fields of the ryotwari areas were frequently contrasted with the well-cultivated zamindari lands. On the whole however, Kudimaramath as a system became obsolete.

**Government Take – Over of Community management: Example of Tamil Nadu - How the Old System Worked:**

The following information has been derived from inscriptions and texts about irrigation in Tamil Nadu in the pre-British period. Details irrigation from both tanks and the Cauvery system are cited at length here to show the old social structure by which irrigation could be locally managed, what happened under the British and Indian governments and the trend today. There are thousands of temple inscriptions referring to irrigation and land management in South India. The temple was often the core institution around which a complex society grew, and it dealt even with political and agricultural affair.

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The sacred or temple tanks and the secular or irrigation tanks were two distinct water conservation systems with distinct rules. (See Table II :1 & Table II : 2)

**TABLE: II - 1**

**Distinct Rules of Temple Tanks and Irrigation Tanks**

<table>
<thead>
<tr>
<th>Sacred /Temple Tank</th>
<th>Secular/Irrigation Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The temple tank was/is generally situated near a temple and always belonged to the temple</td>
<td>The irrigation tank was/is generally situated outside the village</td>
</tr>
<tr>
<td>The temple tank was/is maintained by temple funds, with special endowments for its maintenance</td>
<td>Maintained earlier by <em>Kudimaramath</em> system</td>
</tr>
<tr>
<td>The temple tank was always square or rectangular, although in some places they were hexagonal or circular. It was invariably surrounded on four sides by steps leading into the tank. The houses surrounding the tanks were built with their roofs sloping towards the tank, so that the water could run off the sloping roofs and into the tank. The four sides of the tank were built with steps, which led into the tank.</td>
<td>The irrigation tank was a large hollow, which was built along a natural contour by constructing major embankments across the line of the slope that stopped the run-off. Embankments were constructed on two sides to create a three-sided storage. The fourth side was left open for water to enter. It eventually looked like a natural lake. Once the tank was full, the excess would flow out of channels from the highest point to the next tank.</td>
</tr>
<tr>
<td>The water in the temple tanks was/is artificially lifted.</td>
<td>Irrigation tanks had channels through which water was let out, to flow easily. However many of these channels are now blocked.</td>
</tr>
<tr>
<td>Temple tanks are dug-out tanks.</td>
<td>Irrigation tanks are above-surface tanks.</td>
</tr>
<tr>
<td>Temple tanks had strict rules regarding usage, and the water was used for the ritual bath (<em>abhishekha</em>) of the deity. Devotees and pilgrims could use the water for drinking and washing the face, hands and feet before entering the temple.</td>
<td>Irrigation tank water was available for every conceivable activity, from irrigation to washing clothes and animals to drinking.</td>
</tr>
</tbody>
</table>

Source: Nanditha Krishna, “Conserving water in south India The sacred and the secular”, *Water Resources: Development and Management in India through the Ages*, pp. 120-121.
TABLE: II - 2

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temple tanks were/are rarely, if ever, used for irrigation; if so, it was limited to the irrigation of temple lands.</td>
<td>Irrigation was/is the primary activity of the secular tanks. Other activities were secondary.</td>
</tr>
<tr>
<td>Sacred tanks were/are never cultivated</td>
<td>If the actual rainfall was one-third the usual rainfall or less, the tank bed of the irrigation tank was cultivated. This has stopped since the take-over by the P.W.D.</td>
</tr>
<tr>
<td>Temple cattle were/are permitted to drink from temple tanks.</td>
<td>Irrigation tanks were very important sources for drinking water for cattle. This is no longer true as the tanks are poorly maintained and the cattle paths removed.</td>
</tr>
<tr>
<td>Fishing was/is never permitted in sacred tanks</td>
<td>Fishing rights were/are generally auctioned in secular tanks. Fishing rights were strictly observed and the general public could not fish in this tank. Fishing rights are a major source of income for the panchayat. This was also a protection for the water body and a check on excessive water utilization for irrigation.</td>
</tr>
<tr>
<td>The water source for a sacred tank is either rainwater or ground water. Some sacred tanks have a well in the center, which is used for the deity's ritual bath.</td>
<td>The water sources for irrigation tanks include rainwater, riverine channels and gullies directing rainwater collected in puddles and ponds into the tank.</td>
</tr>
<tr>
<td>Sacred tanks are still desilted regularly and silt and waste removed</td>
<td>Secular tanks are not regularly desilted because they are now under the control of the Public Works Departments.</td>
</tr>
<tr>
<td>Sacred tanks are generally of a depth of 3 to 6 meters, and a limited enclosed area.</td>
<td>Irrigation tanks may be of far greater depths</td>
</tr>
<tr>
<td>Sacred tanks are either named after the temple or have a name with a religious mythology.</td>
<td>Secular tanks are generally named after the village where they are situated.</td>
</tr>
<tr>
<td>Sacred tanks are good indicators of aquifer level,</td>
<td>Irrigation tanks are good indicators of aquifer level.</td>
</tr>
</tbody>
</table>

Source: Nanditha Krishna, “Conserving water in south India The sacred and the secular”, *Water Resources: Development and Management in India through the Ages*, p. 121.
IV

Taccavi Loan to Cultivators:

The system of granting what are known as Taccavi loans to cultivators to enable them to purchase the prime requisites of agriculture such as seeds, cattle, manure which was in vogue even during the reign of early rules of the country was continued by the Company’s rule. A complicated procedure was followed for sanctioning these Taccavi loans. While loans were advanced by the local moneylenders, the interest thereon was paid by the rulers. But the East India Company did away with this procedure, and themselves gave loans at very low rates of interest to the ryots and collected the loans in the next harvesting season. But the money set apart for this purpose was minimal and hence only 3% of the ryots could benefit out of this taccavi loan.

The Prevailing Cropping Patterns:

Another important factor determining the use of land was the prevailing cropping pattern. To take the case of wet land in Chengalpattu, the main crop there was sumba, amounting to 62% of the whole produce. The kar was a limited first crop, cultivated in areas where the facilities of early irrigation through river channels were available, as in Kanchipuram and Uthiramerur, but it was generally insecure. Of the two-cropped wet land, the cropping schedule was either kar (reaping time October-November) and manavari (reaping time May-June), or sumba (reaping time January - February) and nadungal (reaping time June - July) on the

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same land. Sometimes there was a third produce, a kind of pulse called *poovasi* which was reaped before August - September.\(^{32}\)

In South Arcot, more than 69% of the cultivated land belonged to the dry category; and the wet cultivation was about 29%. However, only the two taluks of Mannargudi and Chidambaram - especially after the construction of the Lower Kolli dam Anicut in 1836 - had the relative security of wet agriculture. Three-fourths of the wet areas in the district produced coarse and fine paddy, the rest being devoted mainly to the cultivation of *kambu* dry grain. Of the dry land, *kambu* accounted for 24%, *varagu* 24%, *ragi* 18%, *cholum* 6%, and various other crops accounted for 12%. In less than 1% of the total cropped area, garden cultivation was done to produce valuable fruits.\(^{33}\)

In Salem, two crops were produced both in dry and some wet lands. The first dry crops comprising *cholum, kambu* or gingeli oilseed were sown in April - May, while the second dry crops including *ragi, castor oil-nut, cotton* and different kinds of pulses were sown in between June and August. *Cholum* was a four-month crop, but not *ragi* or what has been called *kodoroo*, both of which were six-month crops. The latter is also said "to exhaust the soil more than any other crop".\(^{34}\) There was sometimes a third dry crop - horse gram and other pulses of quick growth. As regards the second-crop wet cultivation, most of it was confined to Namakal only.\(^{35}\)


\(^{34}\) *Ibid.*

\(^{35}\) *Ibid.*
Similarly, Coimbatore was mostly a dry district, the dry, garden and wet cultivation being 86%, 9.22% and 4.61% respectively. As for the crop pattern, *kambu* was the main production followed by *cholum* and *ragi*, and paddy was cultivated in less than 6% of land under the food crops. About 8% of the total land cultivated was under cotton, and there was some tobacco cultivation in the garden land.\textsuperscript{36}

Of the total cultivation of Tiruchirappalli district, about 64% was under dry cultivation, while 29.29 and 6.82% were under wet and garden cultivation respectively. There were two kinds of first wet crops - *mauri kar* and *peshanam* most of which were reaped before January. The second crop was generally called *kodai kar*, reaped by March - April. In some cases there was another crop called *thaladi valan* which was cultivated in March - April, but reaped only in the ensuing *Fasli* year (which begins by the middle of April). The valuable dry crops were *ragi* and *kambu*, though inferior grains like *varagu*, *shamai*, *kottai*, *mochai* and *tovari* were also cultivated.\textsuperscript{37}

For Thanjavur, it has been calculated that by 1822 - 1823 about 75% of the total cultivated land was wet, while 23.08% and 2.09% were under dry and garden cultivation respectively. By about 1850, when for the first time the data regarding acreage devoted to each crop were supplied by the Collector, paddy was cultivated in 79% of the total cropped area, while *varagu*, *kambu* and *ragi* appeared as the major dry crops of the district. Probably one-fifth of the total wet land was doubly cropped.\textsuperscript{38}

\textsuperscript{36} Ibid.
\textsuperscript{37} Ibid., pp. 30-31.
\textsuperscript{38} Ibid., p. 31.
In Madurai, the major dry crop was *ragi* and *kambu*, but cotton was relatively widely cultivated, particularly in the taluk of Tirumangalam. Paddy was mostly confined to both sides of the Vaigai, and particularly in the Madakulam taluk. In Tirunelveli the rich black soils of Nadumandalam, Sankaranayinarkoil and Srivaikuntam taluks were especially sown with cotton, and were highly productive. If paddy, forming about 23.11% of the total district cultivation, was the major product of the securely irrigated portions, the cultivation of cotton - forming about 14.61% of the total - was mostly confined to certain insecure areas.\(^{39}\)

Francis Buchanan, who toured the newly conquered territories in 1800, repeatedly refers to the desolate condition of the districts through which he passed. According to him cultivation was only a fraction of its former extent. Livestock had dwindled equally with the population and in some cases even more. Irrigation was greatly neglected by Government as well as by the people, and “the numerous tanks—the heritage from past rulers—were in a state of ruin.”\(^{40}\) Buchanan found the soil in the neighborhood of Madras produced a good crop of rice if the rainfall was sufficient. In some places the people irrigated their fields from old tanks and reservoirs, and these fields were covered with rice.

On the condition of these agricultural labourers in Dharapuram Buchanan writes, the servants employed here in agriculture are hired in the beginning of the year for twelve months. They may change their service when their term expires if they be not in their master's debt; but as he generally advanced money for their

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\(^{39}\) *Ibid.*

marriages and other ceremonies, they are sold at liberty to go away. They get twenty bullas of rough rice (paddy) a month with four fanams and one siliga of rough rice yearly, and their master pays their house-rents. The whole is about 31 bushels of rough rice, of which one-half is husk, with two shillings in money besides the house-rent which will not exceed one or two shillings a year.\footnote{P.N. Choppra, T.K. Ravindran, and N. Subramanian, \textit{History of South India - Ancient Medieval and Modern} (New Delhi: S. Chand & Company Limited, 2003), pp. 128-129.}

**Rules for the Collectors, Inspectors, and Superintendents:**

1. The Inspector of Tank Estimates at the presidency was to be the only channel of communication between the Collectors, the Superintendents of Tanks, and the Board of Revenue on all subjects connected with the estimated or actual charges in the tank irrigation or the repair of roads and public choultries.

2. Where a subordinate Superintendent within the Collector’s district, the Collector at liberty to address him instead of the Principal Superintendent within whose range, whether his district was included or not.

3. All communications of Collectors to the Principal Subordinate Superintendent, that required orders from the Board, or government, were to be forwarded with the least possible delay to the Inspector directly, by the officer to whom they were addressed, with his opinion thereon.

4. Original communications of the Subordinate Superintendents not referring to letters from the Collectors were to be submitted to the Inspector.
5. The item of charges on account of repairs of Tanks was not to be included in the general estimates of charges annually submitted for sanction.

6. All disbursements on this account must be entered in account as “occasional”, “ordinary” or “extraordinary”.

7. “Extradinary” disbursements for tank repairs included all unauthorized disbursements made by the Collectors on their own responsibility, and under the general discretion vested in them to disburse money where required for this purpose on any sudden inundation, breaking of tanks, or unforeseen accidents, where a previous reference to Government was impracticable.

8. No estimates for such works were required to be furnished, but a statement of account of the actual charges incurred under this head must be submitted by the Collector at the close of each year, through the duty of the principal or one of the subordinate Superintendents, was generally to ascertain that the work stated had been performed, and that the rates of charge are moderate. This certificate with his remarks to the Inspector was to be submitted in order to obtain sanction from government.

9. “Ordinary” disbursements for tank repairs included all usual annual disbursements done, under sanction to be obtained from government to estimates, and no work was to be commenced by Collectors without such estimates being previously prepared, unless there was emergency as mentioned earlier.
10. The Collectors were to send through the principal or one of the subordinate Superintendents to the Inspector’s Office, an estimate of all ordinary annual works and casual repairs required to be commenced before the advent of monsoon. It was the duty of a subordinate official to correct or amend the estimate, and to submit it with his remarks to the Inspector.

11."Occasional” disbursements for tank repairs included all disbursements to be incurred, after sanction from government to be obtained in advance, for works or repairs of an important or extensive nature. No such works were to commence, unless the Collector had previously received sanction for the estimate.

12. The estimates for “Ordinary” or “Occasional” tank repairs on having been sanctioned by Government, accounts of the actual expenditure were to be furnished by the Collectors after the entire works had been completed.42

Staff for the Work:

1) With the view to filling up the vacancies for the use of surveyors attached to the Tank department – the boys appointed for the purpose were to be Apprentices to the Inspector for a period of not less than seven or more than nine years.

2) The age of admission was to be between 12 and 14

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3) These boys were to be placed under the control of the Inspector, who should regulate their duties, theoretical and practical, through one of the Surveyors, placed under him for that purpose as well as for any other duties of the Inspector’s Office.43

Rules for Estimates:

1) The established rule that works of every description whatever in the Tank departments were to be measured by the yard and that no dimension in earth work, or rough stone work, be taken less than one Anna or 16th, excluding all fractions thereof.

2) For brick work or wrought stone work, half annas were to be allowed.

3) All prices were to be quoted per yard, in rupees, anna and paisa, but all sums in the column of total be in rupees and anna’s only.

4) The Superintendents of Tank Repairs were to keep a book or rates of labor and price of materials in each district, and it expected that they take every opportunity, by personal enquiry to obtain correct information of these points and to record the same for the improvement and completion of general book of rates and prices to be furnished to the Inspector of Tank Estimates at the Presidency.

43 Ibid.
5) The Superintendents were to be furnished by Collectors with price lists whenever required, exhibiting the rate of labour and value of materials in all parts of the district within their superintendence.

6) It was required that on all occasions the Superintendents should act according to the instructions of the Collectors in the formation of estimates.

7) The size of Bricks and the dimensions of the rock established at the Presidency, shall be adopted as the standard throughout the Country, as for as practicable, and the Inspector shall forward to each Collector a standard measure, together with a Brick mould, and rock, to be kept in his Cutcherry, as model of those to be established in his different taluks.

8) In mixing the mortar, a due proportion of sand, chunam and jiggery was to be used. This depended on the quality of those materials at the different places.\(^{44}\)

\[V\]

\textbf{Irrigation Policy:}

Madras was rich in the remains of reservoir tanks, thanks to native rulers and chieftains. Francis Buchanan noticed this and described them in course of his journey from Madras to West Coast. A systematic restoration of these ancient works would have changed face of the country within fifty of sixty years, and

\(^{44}\textit{Ibid.}, pp. 222-223.\]
protected its population from famines. But the Company administration did not bother to invest in irrigation projects.\textsuperscript{45}

The agriculturists’ needs were taken care of in the Chola days also. Chola inscriptions mention a number of irrigation lakes. "The Chola Varidhi of Sholinghur, the Kaliyaneri near Annamalai in Madurai, Kallinangaikulam at Cholapuram, the Rajendra Chola Periya Eri at Punganur are only the leading examples of a very large number of irrigation tanks mentioned in the inscriptions” \textsuperscript{46}

The river Cauvery, and its branch the Coleroon, (kollidam), the most important rivers in Tiruchirappalli. The former enters the district at its western extremity, and traverses it from west to east. About 11 miles west of the city, it separates into two branches, one of which, flowing south – east, retains the name of Cauvery while the other running north-east is termed the Coleroon. These rivers almost rejoin each other about 10 miles east of Tiruchirappalli city, where it has been found necessary to separate them by an artificial embankment. The place thus enclosed by the two rivers is known as Srirangam. After its separation from the Cauvery, the Coleroon flows north-east through the taluk of Tiruchirappalli, and farther on forms the boundary between Udayarpalayam taluk and Thanjavur district. The river Vellaur forms the northern boundary of apportion of the district, separating

\textsuperscript{45} Romesh Chandra Dutt, \textit{India in Victorian Age an Economic History of the People} (London: Kegan Paul, Trench, Trubner & Co. Ltd, 1904), pp. 170-171.

\textsuperscript{46} S.A. Rahman, \textit{The Beautiful India & Tamil Nadu}, p. 257.
it from South Arcot. A few villages in the extreme west are irrigated by the Amravati River, which forms the boundary between Tiruchirappalli and Coimbatore.

The old Cauvery system was in working condition when the British took it over in 1799. But the British could not analyze or support this local management. So within four years after the British took over, it deteriorated and an engineering project had to be mobilized to try to restore it.47

The Mackenzie manuscripts written in May 1777 describe the anicut and the reasons for building the same according to opinions prevailed then.48 Sir Arthur Cotton's Cauvery-Coleroon anicuts were based on this work of the Cholas, which served as the key to the irrigation of Thanjavur.

The East India Company took credit to themselves for the successful and profitable results of irrigation works done by Indian rulers. When the country came under British administration in 1801, the bed of the river was rising by the deposit of silt; and the extent of irrigated land was diminishing. The success of the Jumna Canals in Northern India prompted the colonial bureaucracy to attempt improvement of the Kollidam Works in the South. In January 1836 the work was vigorously prosecuted. The annual expenditure on the Upper and Lower Kollidam anicuts came to upwards of Rs.80,000 and a further sum of Rs.1,00,000 was spent on subsidiary works for extending irrigation over the district of Thanjavur and some parts

48 P. Gomathinayagam, “Taming the Rivers of Tamilnadu (From Sangam Age to 20th Century)”, Water Resources: Development and Management in India through The Ages, p.111.
of Tiruchirappalli and South Arcot. The lands irrigated from the Kollidam and Cauvery increased from 80,000 acres to 7,16,000 acres; and the land revenue was increased by Rs.44,000, per annum, giving a return of over 24% on outlay.\textsuperscript{49}

Tirupur, to the east of Coimbatore, was then a town with 300 houses and a weekly market. The rice land in the neighbourhood produced only one crop, and was irrigated partly from reservoirs and partly from canals brought from the Noyel River. Owing to want of repairs, more than one-third of the lands previously cultivated were out of cultivation. Further down the Cauvery river was the important town of Kodumudi with an ancient temple and 118 houses. A canal taken from the Cauvery was conducted over the Noyel River to Pugalur village, and irrigated a large tract of land. The rent fixed in these parts by Tipu Sultan was four-tenths of the produce, but this was converted into a money rent, 3s. 53/4d. per acre, by the English Government in 1799.\textsuperscript{50}

Karur was a town with 1000 houses on the Amaravati River, a tributary of the Cauvery. But the merchants were petty dealers, and the weavers were not numerous. Two canals from the Cauvery and several from the Amaravati River irrigated this district. Sugar-cane, rice, and dry crops were grown.\textsuperscript{51}

The annual rainfall of Madurai was both small in amount and variable in its seasons. All the hill streams, and especially the Vaigai, were crossed by frequent

\textsuperscript{50} \textit{Ibid.}, pp. 140-143.
\textsuperscript{51} \textit{Ibid.}
anicuts or dams, which conveyed the flood water into storage tanks, from where it was distributed over the fields. Some of these tanks were very large, and capable of supplying many hundred acres in a favourable year. Rajasingamangalam, in the north of Ramnathapuram was said to be 20 miles in circumference. Many of them, according to Buchanan, were under repair.\textsuperscript{52}

**Promotions of Irrigation works:**

Irrigation development under British rule began with the renovation, improvement and extension of existing works. When enough experience and confidence had been gained, the Government ventured into new major works such as the Upper Ganga Canal, the Upper Bari Doab Canal and Krishna and Godavari Delta Systems. The period from 1836 to 1866 marked the investigation, development and completion of these four major works. In 1867, the Government adopted the practice of accepting works, which promised a minimum net return. Later on, major canal works such as the Sirhind, the Lower Ganga, the Agra and the Mutha canals, and the Periyar Dam and Canals were taken up.\textsuperscript{53}

The British saw the need to put the water resources of Tamil Nadu and in particular the Thanjavur, Tiruchirapalli and the South Arcot districts on a sound and scientific footing. It was a major concern of the Board of Revenue to consider ways and means to improve the existing irrigation falsities and to introduce new ones. Lord Dalhousie who may be considered to be the Maker of Modern India was particularly interested in irrigation. Kaye observed that 'to fertilise the land is to

civilize the people'. The idea of the Periyar dam, Madurai district, originated as early as 1798 with the Raja of Ramnathapuram but it materialized almost a century later: it was completed in 1895.\(^{54}\) The Periyar Reservoir Project was constructed, with the consent of the neighboring State, for diverting the west flowing river water which falls into the Arabian Sea eastwards, through a tunnel, to provide irrigation facilities in Madurai district for power generation.\(^{55}\)

\section*{VI}

\textbf{Impact of British Colonialism on Indian Agriculture:}

The exploitative nature of British rule and their nascent capitalist economy had a disastrous effect on the self-sufficient economy of the Indian villages. As a consequence of British rule, self-sufficient village units were destroyed and a large population dependent upon village handicrafts was ruined. The introduction of private property in land led to the evolution of new structures of agrarian relations.

\textbf{Commercialization of Agriculture:}

Because of new land relations and fixed revenue payment in cash, the old concept of 'production for the village' was replaced by 'production for the market'. Commercial agriculture was not new to India. Nevertheless, during the British rule the process got a new impetus. But it was unnatural and forced growth. It proved to be fatal to the people of India. This forced commercialization where the cultivator had to sell to the trader or the moneylender was also encouraged by the Government since it


\^ {55}\textit{U. Sankar, Tamilnadu Economy}, p. 258.
was in the British colonial interests.\textsuperscript{56} Apart from it, there were other factors. The foremost was the constant need of the peasant under the new land system to find ways for getting enough cash money to meet the mounting revenue demands of the state and the landlord. Also, by the middle of the nineteenth century, Britain itself had passed through industrial revolution and its need for agricultural raw material increased. The British industries required a market for their goods which in turn required cash in the hands of the people. The commercialization of agriculture was reflected in the extension of some areas under industrial crops, specialization of crops in different places, and increase in export trade and a rise in internal trade.\textsuperscript{57} As the industrial crops were more paying than the food crops, the peasants who were at liberty to choose their crops showed a tendency to shift towards them. But the market for the exportable industrial crops was not stable.

A notable feature of the agriculture in the first half of 19\textsuperscript{th} century was continuous fall in prices in agricultural commodities. Prices did not fall at the same time or at the same rate in all the districts. The variations were significant. Except Thanjavur and Tirunelveli where the actual prices obtained by the cultivators were determined by a particular system called \textit{olungu} “(the productive value of the ‘wet’ lands in each village was elaborately recalculated and a money assessment was thereby fixed on each village, which was to vary with considerable variation in the

\textsuperscript{56} Romesh Chandra Dutt, \textit{India in Victorian Age an Economic History of the People}, p. 525.

\textsuperscript{57} R.C. Veermani, \textit{Colonialism and Nationalism in India}, pp. 77-78.
price of grain this was called the *olungu* settlement)* and not by any fixed commutation prices. During the time of revenue payment, prices declined most in North Arcot. This was partly because of the very high prices prevailing in the district in the 1820s, which made the later fall look much steeper than they actually were. Except the two years of 1845 - 1846 and 1846 - 1847, prices were decidedly low in South Arcot in the 1840s. In Salem and Coimbatore, the prices of Paddy were comparatively high because of the low acreage assigned to this cultivation (not more than 5.8% of the cultivated area in Coimbatore), but its fall was equally marked in the 1840s and even in the early 1850s. The prices of the both sorts of paddy and *ragi* in Madurai declined in the early 1840s, but the prices of *ragi* were low even in the four years following 1828 - 1829. In Tiruchirappalli the prices of paddy were so high as compared with the Thanjavur prices of the same. This proved the disadvantage for Tiruchirappalli, as its grain markets were flooded by the cheap Thanjavur variety.

VII

In pre-colonial period, the state was a form of power and various local chiefs and landowning elites "built irrigation system through local investment of local wealth". The Vijayanagar rulers and their warrior agents made more effective appropriation of the rural surplus leading to the greater militarization of the state.

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They showed serious concern for irrigation works. The control of the agrarian productive organization within the villages was held by the amaranayakas and the palayakkarers who appointed irrigation supervisors. Secondly, though local initiative was very much there for the construction and maintenance of irrigation, it was the wealthy Nayaka agents and palayakkarers who did provide finances and services without which no large project could have been possible. Finally, investment came from petty local chiefs, landowning elites and temples. There was also the kudimaramath or Community of labour for irrigation maintenance.  

It was from the eighteenth century onwards that the signs of decline in irrigation works were visible in various parts of the region. Political anarchy caused both by the palayakkaers revolts as well as British exaction resulted in the poor maintenance and virtual disrepair of many of these irrigation works.

The system before the nineteenth century was, however, an inundation one, rather than a controlled irrigation system, and was therefore subject to the vagaries of the river. As pointed out earlier for a century before the advent of the British rule, irrigation had been badly neglected on account of wars and political changes. In 1801 when the East India Company took over the Thanjavur district, irrigation was rapidly deteriorating, the channels were silting up and fields were left uncultivated for want of proper water supply. To re-establish satisfactory irrigation

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61 Ibid.
62 Ibid., p. 44.
conditions was one of the first problems for the British government.\textsuperscript{63}

In Madras presidency the result to the government and the community of the construction of projects on the Cauvery, Krishna and Godavari were very marked. These three projects were eminently successful. The results of the works on the Cauvery and Coleroon which continued for nearly nine years tested the efficiency and proved the stability of these works. In 1832 Cotton, writing about the minor irrigation works, said the irrigation works in general are so far from being in good order that the revenue actually derived from them at present is by no means a full measure of their value.\textsuperscript{64} It was no doubt true that there had been very considerable increase in the aggregate area under cultivation by the closing years of the Company’s rule and after.

The development which took place in well irrigation can be attributed to some extent to the liberal policy pursued by the Company during the closing years of its rule. This was done by way of exempting private improvements from additional taxation. The principle of leaving to the ryot, the full benefit accruing from improvements effected by Sir Thomas Munro at very early period of his career. But it was not until 1852 that his recommendation not to assess wells was implemented. In that year orders were issued giving a distinct assurance that the ryots would be allowed the full benefit of their own improvements, that the lands thus improved

\textsuperscript{63} S. Geethakannammal, “Cauvery - Mettur Project: Development of Irrigation, Agriculture and Water Supply in Salem District”, Water Resources: Development and Management in India through the Ages, p. 144.

\textsuperscript{64} Challa Ramachandran, East India Company and South Indian Economy, p. 85.
would not be subject to any additional assessment so long as the general rates of the district remain unaltered and that on the occasion of any general revision of the district rates the assessment of the lands so improved would be irrespective of the increased value conferred upon them by their holders. The result of these concessions had been beneficial to many districts to the extent of preventing scarcity from developing in to famine.\(^{65}\)

Although experiments were going on in the reorganization of the public works department (irrigation branch and in the construction of major irrigation projects, one after the other even though slowly), there was objection in some official quarters to the extension of irrigation works. It is this, in addition to the following other reasons, which retarded the quick materialization of new and further projects which would have gone a long way in mitigating the sufferings of the people.

A section of the official opinion opposed the extension of irrigation on the assumption that the quantity of grain produced in the districts of the presidency was fully sufficient to meet the demand of the population. To support their argument they pointed to the prevalence of low prices in 1840's and pleaded that any additional production would tend to glut the market by further reduction in the price of grain resulting in discouragement to the agriculturist thereby making him not use the additional means of irrigation provided at huge expenditure. Sentiments to this effect were expressed by the Collectors of Thanjavur and Tiruchirappalli. It cannot be denied that such false and unfounded apprehensions were responsible for checking the progress of irrigation in the southern provinces. Hence the slow and lethargic disposal

\(^{65}\) *Ibid.*
of the papers by the authorities connected with the extension of irrigation in the Presidency.

Another objection which made the Company unnecessarily cautious towards the extension of irrigation was the fear that there was not only insufficient labour in the country to execute such big projects but also insufficient agricultural stock to make use of the extended irrigation facilities if provided. Many huge tracts of good land, in spite of the extension of irrigation facilities, remained waste and uncultivated not because of inadequate supply of labour, insufficient agricultural stock: or surplus production, but because of a very high and unequal assessment of lands.\textsuperscript{66}

\textsuperscript{66} Ibid.