Chapter V

IRRIGATION ARRANGEMENTS
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"Irrigated agriculture, based primarily upon tank or reservoir or storage and secondarily upon river sources, was the dominant and stable system of cultivation"\(^1\). The Tamil country was not an exemption. When the Tamil farmers "stored rain water in tanks and conveyed them to fields through irrigation channels or the water lifts and irrigated the lands they cultivated", they prove beyond doubt that "the cult of agriculture developed to such perfection in early days that modern science can add little to the traditional wisdom of the South Indian farmer"\(^2\). Further the kings Tamil through the ages took greater care to foster agricultural activities by stressing the attention towards agriculture\(^3\). The Cholas devoted much attention towards the development of agriculture\(^4\). Karikala, the Sangam Chola ruler, built the embankment on the river Kaveri and dug various primary channels for irrigation\(^5\). The later Chola monarchs also were not an exception to that. They too concentrated on agricultural

5. S. Krishnasamy Ayyangar, Ancient India (1912), p.185.
activities. In the same way, the Pallavas who were known as kaduvettis used several systems of irrigation works like canals, tanks and channels. Such facts stressed the scholar to have a detailed account of the irrigation systems adopted by the Tamils of the ancient period. Further only if the irrigation arrangements of the ancient Tamils are revealed, one can have a complete picture of agrarian pursuits of that age.

Rain:

As India was a country waiting for monsoon rain for agriculture, the ancient Tamil agriculturists were depending upon rain for agricultural activities. Since monsoon and seasonal rain was considered as a wealth, it was believed that if rain diminishes or fails, the activities of the agricultural labourers would cease totally. Further, the Tamils were aware of the fact that irrigation will be the primary factor for the welfare of the field. So it was necessary to store the rainwater when it is obtained. It was a customary practice to store the rainwater in the tanks to be used for irrigation purposes in seasons other than rain. The reference about

reservoir\textsuperscript{10} will substantiate the fact. While sufficient rain was the essential need for a good and bumper harvest\textsuperscript{11} it was realised that rainwater would set aside the distresses of agrarian issues\textsuperscript{12}. Thus the natural rainwater was the primary source of irrigation, which was in vogue in different forms such as rivers, well, canals, tanks etc.

**River:**

River water in Tamil country formed the primary and principal irrigational source. The rivers Palar, Kaveri, Vaigai, Tambira varuni etc. were the significant rivers of Tamilnadu. When they had water from the waterfalls during summer seasons, the farmers used to form channels on the banks of the rivers and that water was used to irrigate the agricultural fields\textsuperscript{13}. The use of Kaveri water will attest this\textsuperscript{14}. Kaveri of the Chola region, the perennial irrigation source was known even during the \textit{Saṅgam} Age itself\textsuperscript{15}. The flood in the river was given a warm welcome.

\begin{itemize}
\item\textsuperscript{10} \textit{Pattinappālai}: 38, \textit{Sundarar Dēvāram}: 20, \textit{Tiruppaṅṭi}: 3:3.
\item\textsuperscript{11} \textit{Sundarar Dēvāram}: 12, \textit{Tirukkalukunṭam}: 9:3.
\item\textsuperscript{12} \textit{Nāvukkarasar Dēvāram}: 6:280: 9:1.
\item\textsuperscript{13} \textit{Padiruppattau}: V: 3, 14-15.
\item\textsuperscript{14} \textit{Nāvukkarasar Dēvāram}: 5: 189:5: 1-2.
\item\textsuperscript{15} \textit{Pattinappālai}: 6-8, 110 of 1925 etc.
\end{itemize}
because it was a regular and prominent source of irrigation. The river water was utilised for irrigation by means of canals. Hence an analysis on that line will be made in the succeeding pages.

**Tanks:**

Storing the rainwater in the tanks was another system of irrigation source. The constant and continuous use of the term *kayam* i.e., the tank will substantiate this fact. The tanks were of different types such as the tanks having tortoise, the tanks of cold water, and deep tank. *Kūttam* was only a small tank. Bigger tank was called as *ēri*. They were aware of the fact that the non-availability of water in the tank will destroy the paddy yield. The availability of many references, suggest that wells were also used for irrigation purposes in addition to tanks. 

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16. **Maduraikkāñchi:** 109-110.
17. **Puranānūru:** 15:10 and 70:6.
19. **Perumbānāṟṟuppaṭai:** 271.
21. **Nāṉmaṉikkadigai:** 80:3.
22. **Cirupaṉchamūlam:** 64:1-3.
ori, Sadamangalam ori^23, Bāhūr ori^24 etc. will prove the role of tanks in the agrarian life of the Tamils. Since agriculture was an essential occupation for producing food materials for mankind, much attention was conceded to the developed irrigation facilities. The irrigation by the tanks was a significant form during that period.

Due to their philanthropic deed and fascination towards charities with inclination to attain fame and name, private individuals devoted to dig tanks to be used for irrigation purposes^25. A Chola official called Kaliyan had dug a tank by name Kaliyan ori for the cultivation of paddy. Arayan ori tank was the work of the urar of Vadavur^26. One Dharmaudaya Chetti has constructed another tank^27. One Parantaka Pullavelan had dug another tank called pullan ori with sluices^28. Vāli ori was constructed by Valivadugan, a private philanthropist of that period^29. Attimallan and

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25. 52 of 1936.
27. 190 of 1931.
28. 690 of 1906.
29. 348 of 1914.
Kanamallan the twin brothers have constructed the Kañamallan ēri\textsuperscript{30}. Thus private individuals devoted much attention to the promotion of irrigation facilities. The mentioning of the names of the relatives of Karikalan, the Chola monarch, will suggest that the members of Royal family were so particular in promoting irrigation\textsuperscript{31}.

Like the Saṅgam Chola ruler Karikalan, the rulers of the Vijayalaya Chola line of the Imperial Cholas were paying attention to irrigation. Parantaka I (907-950 A.D.) was responsible for the digging of the Solavāridhi near Solasingapuram\textsuperscript{32}. He has even raised the bund for the maintenance of the tank\textsuperscript{33}. Kandarathitta (950-957 A.D) son of Parantaka I constructed the Kañdarādhitta Pērēri near Ulagapuram\textsuperscript{34}. Chembian Madhevi wife of the Chola ruler Kandaradhitta dug the Chembian Madhevi Pērēri near Tirumalabadi\textsuperscript{35}. Like Parantaka I who made arrangements for controlling the Kaverippakkam tank\textsuperscript{36}, Kandaradhitta's son Madurantaka alias Uttama Chola (970-985 A.D.) constructed the

\textsuperscript{30} 72 of 1930.
\textsuperscript{31} Karanthai copper plates, part I, Prasasti line 13.
\textsuperscript{32} E.I., Vol. V, pp.221-25.
\textsuperscript{33} S.I.I., Vol. III, No.106.
\textsuperscript{34} 140 of 1919.
\textsuperscript{36} 693 of 1904.
Madurantakam tank\textsuperscript{37}. Kundavi, the daughter of Sundara Chola (957-979 A.D.) constructed the \textit{Kundavaipp"{o}reri}\textsuperscript{38} at Brahmmadesam. Raja Raja I (985-1014 A.D.), a philanthropist along with his distinctive welfare activities, dug a tank at Kundavainallur. The above facts expose that all the eminent Chola rulers were devoting much attention on the development of the various irrigation facilities. The tank water was used for irrigating the temple as well as private lands\textsuperscript{39}. The \textit{Tribhuvanm"{a}dh"{e}vi P"{e}r"{e}r}i the work of the Chola queen was commonly used for the irrigation of agricultural fields\textsuperscript{40}. In the Chola region the inundated river Kaveri was the primary source for filling the tanks. During the period of Imperial Cholas the irrigation tanks were under the custody of \textit{V"{a}riyapperumakka}\textsuperscript{41}. It is obvious that while giving much attention to various irrigation facilities the Chola queens also did their best in the creation of tanks and  "ris. They did not lag behind in contributing to the welfare activities.

\begin{itemize}
  \item \textsuperscript{38} 264 of 1914.
  \item \textsuperscript{39} 295 of 1909.
  \item \textsuperscript{40} \textit{Karanthai copper plates}, part I, p.1.
  \item \textsuperscript{41} \textit{S.I.I.}, Vol. VII, No.809.
\end{itemize}
While the above facts stand testimony to the contribution of the Chola rulers for the establishment of irrigation tanks, the Pallavas of the greater Pallava line of the Tondaimandalam region were not an exception in that regard. During that period the irrigation public of the regions used tanks by payment of specific amount as fee. The private individuals were much interested in enhancing the irrigation facilities. One Valivadugan dug the vāli ēri. Guṇābadēya charters of queen Charudevi, otherwise known as the British Museum plates of Charudevi has mentioned about one Rājataṭāka and that suggests the construction of a tank and the maintenance of it by a king. The Mahēndra Taṭāka constructed by king Mahendravarman I (C. 600-630 A.D.) will attest the above fact. The Sanskrit portion in the Kasakudi copper plates of Nandhivarman refers to a Trālaya Taṭāka and the modern scholar C.Minakshi has identified that as the modern Tennen. Parameswara I (691-728 A.D.), the eminent Pallava monarch constructed the

42. 349 of 1914.
44. 348 of 1914.
47. Thirty Pallava copper plates, p.166.
Paramēswara Tatāka. The Pullur copper plates of Nandhivarman II (731-796 A.D.) are associated with Nēsalapūndi ēri. Pallava ruler Dantivarman (796-847 A.D.) made arrangements for the construction of two tanks viz., Vellēri and Tumbānēri. The same ruler had dug the Vairamēga Tatāka. This tank was constructed on the land donated after purchase. The king Dandivarman has even donated gold for the maintenance of the tank. During the same Pallava’s Dandivarma period Marpidugu, a Muttaraya chieftain was responsible for the construction of a tank called Marpiḍugu ēri near Alambakkam. A later Pallava ruler Kambavaraman (C. 912 A.D.) was responsible for digging the Kārvadi ēri. As referred by the Kāsākuḍī copper plate, Veḷḷiyakkūḷ was an amount collected by the village authorities from the common public in order to dig an irrigation tank. The above facts indicate that the Pallava rulers also did not lag behind in welfare activities and have donated to the

49. Thirty Pallava copper plates, p.52.
50. 394, 397 and 404 of 1905.
51. 150 and 152 of 1916.
52. 61 of 1898.
53. 74 of 1898.
55. 372 of 1911.
preservation of agriculture by arranging irrigational tanks. It is also worth to remember that the agrarian life was mostly depending upon the irrigation facilities arranged through tanks because even private and individual farmers also depended upon the tanks for irrigation.

Like the Cholas and Pallavas of Nadunādu and Toṇḍainādu respectively the Pandyas of First Pandyan Empire of Maduria too were great patrons of agriculture in the Pandya region. Importance was assigned to irrigation, which was a common feature even in the Pandya territory. The Dalavoypuram copper plates of Parantaka Viranarayana attest it, because it refers to one Kudinādai ēri57. During the sixth regnal year of the Pandya ruler Varaguna I (782 A.D.) an individual called Iruppaikudikilan by his own personal efforts renovated an old tank and named it as Kilavanēri58. Srimaran Srivallaba’s period (835-862 A.D.) too witnessed the developed irrigation activities carried out by private individuals of the Pandya country59. Repair of tanks and construction of new tanks were carried out by the earnest and sincere efforts of private individuals. The tank called Pallan kulam formed during that period will

57. Ten Pandya Copper Plates, p. 111.
58. 335 of 1929.
59. S.I.I., Vol. XIV, No. 44.
stand testimony to this. The stress was assigned to irrigation by tanks. It will expose the importance assigned to the tank irrigation in the Pandya Country. A member of a merchant guild called Tisai Ayirattu Ainurruvar has donated gold to a Sabhā of a village for releasing water from a tank for irrigation of agricultural fields

will corroborate the above fact. This will also inform the importance assigned to agriculture by different and varied walks of life.

Thus the above facts reveal that the ancient Tamils were particularly using tanks as primary irrigational sources. The kings, private persons, village assemblies, merchant guilds, temple-authorities and others devoted much to promote agrarian pursuits.

Wells:

Beyond the above measures of irrigation it was a customary practice among the ancient Tamils to irrigate small fragmented holdings of lands with the use of well water. Generally the well known as kēn was utilised not only for irrigation but also for other purposes for fetching

61. Ahanānūru: 137: 2, Cirubānāṛuppaḍai: 172, Tirukkuṟaḷ: 132: 2, Kuṟuntogai: 399:
drinking water etc. **Kīnaru** was another term used to denote the well\(^{62}\). They also supplied ground-water for irrigating the small fields. The landowners maintained their wells, for they were dug in the fields. **Mahānilai, vayakkal** were the terms which indicate the wells\(^{63}\). The small well used for agriculture was commonly known as **turavu** along with **Kīnaru**, which was dug by private individuals\(^{64}\). **Sennīrupudur** and **sennīrvellī** were certain terms, which indicate the existence of other irrigation measures. **Nīrnilai** was yet another measure used for irrigation. This water-pond was used for irrigation\(^{65}\). **Cīrāi** was the reservoir where water was stagnated and maintained for irrigation\(^{66}\). The water stored in larger quantity was known as **Perumcīrāi**. Water received from the waterfalls was utilised for irrigation\(^{67}\). **Kūval** was another form of well constructed with the stones arranged methodically. It also was a source of irrigation\(^{68}\).

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62. 117 of 1926. **Cīrupāṃchamūlam**: 66: 3, **Palamoji**: 61: 2, 344: 4, **Puranānūru**: 132: 3, **Perumbānāṟuppaḍai**: 97.


64. E.I., Vol. XV, p. 72.

65. Karanthai Copper Plates, Part II, Line 16.

66. Dalavoypuram copper Plates, 177-178 etc.


68. Purananuru: 331: 1.
Canal and Channel:

Among the various irrigation systems, canals and channels played a prominent role during the ancient Tamil Country. The canals were generally called by the name vaykkal\(^6\). Channels were dug to irrigate the lands and the wastewater was collected by canals. Different rights were assigned to a particular set of people and the others were forbidden from cutting branches or to put up picotahs for getting water\(^7\). Canals dug passed through the lands purchased for that purpose\(^8\). Those who donated lands to temples or public welfare activities were granted permission to dig their own canals\(^9\). The kings themselves made arrangements to dig canals in their own names. For instance Vairamēganvāykkāl\(^10\), Perumpiduguvōykkāl, Paramēsvaranvāykkāl\(^11\) etc., will attest the above fact.

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69. *Sivakasi Grant*, 89-94 (Vide T.N. Subramanian (Ed.), *Ten Pandya Copper Plates*, p.194).
71. 300 of 1903.
73. 448 and 466 of 1908.
74. 332 of 1903.
Branch canals were also dug there in the canals to be used for irrigating the lands\textsuperscript{75}. The term \textit{marichukkāl} suggests not only the availability of cross canals but also their use. The canals were also beneficial for irrigation and also for the identification and demarcation of lands\textsuperscript{76}. Sometimes the canals were left without any care and left unmaintained\textsuperscript{77}. The canals were called by the names of the tanks, which was the source for getting water\textsuperscript{78}. The kings granted permission for carrying the water of the tanks through canals for different agricultural lands\textsuperscript{79}. It was a customary practice to sell the watering rights of the canals for specific amount to various persons who were in need of it for irrigation\textsuperscript{80}.

The reservoirs too obtained water for storing by \textit{vaykkāls}\textsuperscript{81}. There were particular measures of canals on par with the breadth of the lands\textsuperscript{82}.

The term \textit{ārrukkāl} used to denote the interval between the sluices will

\begin{itemize}
\item \textsuperscript{75} S.I.I., Vol. XIV, No. 41.
\item \textsuperscript{77} S.I.I., Vol. V, No. 707.
\item \textsuperscript{78} 55 of 1895.
\item \textsuperscript{79} S.I.I., Vol. III, No. 15.
\item \textsuperscript{80} Ibid., Vol. VIII, No. 338.
\item \textsuperscript{81} 19 of 1903.
\end{itemize}
reveal it. The mahāsabhās were enjoying the possessive rights and the privileges to use the canals as boundary marks and they had outlets for letting out water at different places where it was required. The lands for canals were made as endowments and placed under the custody of the assemblies. The canals, which were used to water the temple lands, were treated with special recognition. Taxes were collected at specific rates fixed by the mahā sabhā or sabhā from the lands, which used the water through the canals.

The terms Kurungudivāykkāl and Purushothamavāykkāl indicate that the canals were named after the places as well as private individuals. The term Pullūrvōy too will authenticate the different ways of naming the canals. Like vōy, the canal was even called by the name Vambanady. Mamavalavāykkāl and Ganapathy-vōykkāl suggest that

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83. 120 of 1920.
85. 17 of 1895.
88. 585 of 1920.
the canals were named even after the names of various Gods. The canal was generally called by the name nirodukkal. In addition to the above mentioned facts, it is worth to note that Anarivaykkal, Adityavaykkal, Kalavaykkal, Irayanvaykkal, Tiyamulavoykkal etc. suggest that in the irrigation methods canal was a common feature in the Tamil country which had watering of the fields through canals. Nallur, Perungudi, Pulvelur, Vaykals Kanuvaykkal, Manakulamuttiyur, Kongaperur, Kamabathagai vaykals, Singalanthaga Mummudi Chola and Sundara Chola vaykals, exhibit the fact that the Chola territory was mostly depending upon canal irrigation due to the flow of river Kaveri.

In the Pandya region the canals were generally known as padukal. Sankaranvaykkal, Panavaykkal is also the terms which

89. 62 of 1903.
90. 71 of 1871.
91. 208 of 1929.
92. 94 of 1925.
94. Ibid., p. 537.
96. Dalavoypuram Copper Plates, 191.
suggest the importance assigned to the use of canals for irrigation purposes.\textsuperscript{97}

In the Pandya country there were separate canals dug for irrigating the fields of particular set of people. The \textit{Vaṅnārgudīvāykkāl}\textsuperscript{98} indicate that the professionals like dhobis too had their private canals for watering their fields, which were located in separate places. The term \textit{eri arayarkāl}\textsuperscript{99} means those who had the right for using the water of a particular tank that there were separate canals for separate set of people. The term \textit{Vaḷakkudīyanvāykkāl}\textsuperscript{100} will strengthen the above fact.

Thus the canals were used as a common tradition associated with the irrigation in Tamilnadu under various rulers. Since the rivers and reservoirs, were the main source of irrigation, they got water due to rain. So the cultivators had to use the waters from them with the use of canals. The lands, which were categorised and divided into different types obtained their water resources through canals, which were known by different names. It is evident that the canals played a significant role in the

\begin{itemize}
\item \textsuperscript{97} S.I.I., Vol. XIV, No. 67.
\item \textsuperscript{98} Ibid., Vol. V, No. 1407.
\item \textsuperscript{99} 149 of 1895.
\item \textsuperscript{100} S.I.I., Vol. V, No. 713.
\end{itemize}
agrarian life of the ancient Tamils according to their social and political conditions.

**The techniques:**

Though the modern techniques of scientific methods of irrigation were not available during the ancient times, the Tamils had their own indigenous devices for fetching water for irrigation. Such measures were usually common and popular in character. As seen earlier, as there were different categories of lands such as \(\text{vāyakkāi}^{101}\), it should be observed that the land should have widened the scope of using different varieties of irrigation-devices.

The canal-water was taken out through the outlets called \(\text{Kāṇnūrru}\). These outlets should have been many in number, and they should have located at different places\(^{102}\). \(\text{Talaipōlai}\) was the chief outlet and the same was also known as \(\text{Talaivōy}^{103}\). Since the first release would be a forceful one, they should have attached significance to that. Further that will help the letting out of water at all times even though there was little quantity of water in the tank. The water was passed even

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101. 182 of 1907.
102. 257 of 1929.
103. *Thirty Pallava Copper Plates*, p.53 and 104.
through the madai\textsuperscript{104}. The Kali\textl{\n}ani was watered only through that\textsuperscript{105}. The water drawn from the rivers was also called madai\textsuperscript{106} and the tanks too had such madai or sluices. During the Sangam Age, the sluice was also known as madagua\textsuperscript{107}. These two terms are still in vogue and that exposes the continuation of a traditional method\textsuperscript{108}. In the same way as it is called tumbu today it was termed as tumbu even during that period\textsuperscript{109}. The size of the tumbu is also different according to the size and variety of the tank\textsuperscript{110}. The sluices were kept idle and useless when there was no need\textsuperscript{111}. To control the speed during the release of water, check value systems were employed in the sluices\textsuperscript{112}. In the Tondaimandalam region the tumbu was in vogue but it was called by the name Kali\textsuperscript{ng}u\textsuperscript{113} even to day the term Kali\textsuperscript{ng}u is in vogue with regard to agrarian pursuits.

\textsuperscript{104} G\textn\textsuperscript{\textup{n}}anasambandar Devaram: 1, Tirukkolakka: 1, Sundarar Devaram: 5, Panankattur: 1: 3.
\textsuperscript{105} G\textn\textsuperscript{\textup{n}}anasambandar Devaram: 2, Sirkali: 10: 1.
\textsuperscript{106} Parip\textad{\textg}{\textsuperscript{\textup{\textm}}}\text{\textg}: 6: 82.
\textsuperscript{107} Sundarar Devaram: 4, Tirukkurugur: 2:2, N\textv\textsuperscript{\textup{k}}ukkarasar Devaram: 6: 273: 4: 3.
\textsuperscript{108} Cilappatik\textup{\textk}{\textsuperscript{\textup{\textm}}}\text{\textg}: VII, 4:1.
\textsuperscript{109} Ahanan\textu\textg:\ 176: 3, A\textm\textsuperscript{\textup{\textn}}\text{\textm}urun\textu\textg: 109: 2.
\textsuperscript{110} Nan\textm\textsuperscript{\textup{\textn}}\text{\textm}nikka\textd{\textg}: 70: 2-3.
\textsuperscript{111} N\textn\textsuperscript{\textup{\textm}}ukkarasar Devaram: 4: 107: 1: 2.
\textsuperscript{112} Padirrup\textm\textsuperscript{\textup{\textp}}\text{\textm}: V: 1: 20.
\textsuperscript{113} 417 of 1912.
Vettupēru was a sum offered to the individual who was in charge and maintained the head sluice\textsuperscript{114}. Specific sums were appropriated for the maintenance and upkeep of sluices\textsuperscript{115}. In each and every aspect of irrigation the private individuals had their shares and it was applicable even to the maintenance of sluices\textsuperscript{116}. In the Pudukkottai region too sluices were available in vogue\textsuperscript{117}. It indicates that it should have been a common practice adopted in the agricultural activities in the ancient Tamilnadu. The officials of the state under the rulers were entrusted with the work of erection and maintenance of sluices\textsuperscript{118}. It is worth to note that it was believed that construction of sluices as a charitable act\textsuperscript{119}. Thus various agricultural activities at different stages were executed in appropriate ways with the social life of the ancient Tamils at different parts of Tamilnadu.

\textsuperscript{114} E.I., Vol. XXII, p.140.  
\textsuperscript{115} S.I.I., Vol. XII, No. 65.  
\textsuperscript{116} 68 of 1908 and 419 of 1923.  
\textsuperscript{117} P.S.I., No. 16.  
\textsuperscript{118} 419 of 1923.  
\textsuperscript{119} 365 of 1937-38.
In almost all the tanks and canals, sluices of different sizes were used. Like the sluices, which were used for the constant flow of water with checks, Kilar or pully system was the technique employed for drawing water from an irrigation well. Sāl was a large vessel utilized for drawing water from the well and that was treated as an unit of measurement in cultivation to indicate the quantity of water required for a particular area of cultivation. Thus the agricultural activities were carried out in a scrupulous and methodical ways. A metallic basket called Pilā was used for drawing water from a well in the field. Tevvu was also the large bowl employed to fetch water from the wells. The persons employed to draw water by using a tevvu were called tevar. Tulā was another mechanical device used for drawing water from deep wells. Erram or picotah or the lever-balance arrangement fixed on a pole and an oscillating cross bamboo attached to it to draw water from a

120. 385 of 1902.
122. Perumbānāruppadai: 197.
123. Cilappatikāram: X: 111.
124. Maduraikkāñchi: 89.
126. 117 of 1926.
well\textsuperscript{127} was yet another mechanical and scientific device. Both Tūḷā and ṇṟṟam the two ancient devices are still in vogue in different parts of Tamilnadu. The method of irrigation with the use of an ṇṟṟam was generally known as ēṭṭappādu\textsuperscript{128}. It was also called ēṭṭappulam\textsuperscript{129}. The term pērēṭtam\textsuperscript{130} informs that there were various types and sizes of picotahs utilised for irrigation according to the size of the well and water requirement. They have employed private persons on a daily wage of two marakkāl paddy for watering the fields from the wells\textsuperscript{131}. Manimegalai of Cittālai Sattanar also offers a graphic account of the different irrigation means employed by the Tamils during the later periods of the Saṅgam age\textsuperscript{132}.

Thus irrigation was the significant aspect of the agricultural life. But for sufficient watering there will no scope for a proper yield. Different methods were employed for irrigation. Rainwater, rivers, reservoirs, canals, wells etc. helped the farmers in irrigating the fields. Various

\footnotesize{\textsuperscript{127} Cilappatikāram: X: 110, Maduraikkāṇchi: 90.  
128. Thirty Pallava Copper Plates, p.104.  
130. 180 of 1912.  
132. Manimēgalai, XIX: 102-104.}
techniques were put into practice agricultural activities and most of them were crude and indigenous in nature. No modern devices were available then. Though many techniques were employed, it is obvious that all of them were adopted for achieving a good and prosperous yield from the lands. Further, they all seem to be bold devices backed by certain technical and mechanical devices of indigenous nature. Above all it cannot be denied that the farmers of Tamilnadu of the ancient period were so keen on executing the various agrarian measures in a scrupulous way.