



IRRIGATION SYSTEM IN THANJAVUR DISTRICT UNDER THE CHOLAS

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Introduction:

Tanjavur is bounded on the north by south arcot district, on the south by Pudukottai district, on the east by the Bay of Bengal and on the west by the Trichirapalli district the city municipal limit is within an area of 40sq km the present population is around 2,405,890 people. The chola kingdom was one of the ancient lands in the ninth century A.D in south India. It is referred to in the mahabharatas, the indica of magasthenese, the inscriptions of Ashoka, the mahavamsa, and the periplus of the Erythrean sea. Bounded by the two rivers, the pennar and velar, the chola kingdom grew up in Tanjore, Trichirapalli and Pudukottai Region. The Cholas as a dynasty date back to the Sangam period (second century B.C to second century A.D) but disappear from the south Indian scene at the end of it not be heard of till the rise of the house of vijayalaya in the 9th century A.D)A predominantly delta area lying along the west of the Bay of Bengal. Thanjavur is the called know as 'rice bowl of Tamilnadu state'. One of thirty-two district, alone accounts for nearly one-fourth of the total areas under paddy and more than a quarter of the total output of paddy cultivation in and around Thanjavur district. Historically the area has been benefited by the availability of natural flow of irrigation from a number of rivers which pass through the region. The largest of these the Cauvery, has a length of 500 miles from its source in neighbouring Mysore state to outlet in eastern Thanjavur. Altogether the Cauvery and its tributaries irrigate about 1,700,000 acres in Tamilnadu. More than two-third of the delta area is concentrated in Thajavur region.

Nature of Irrigation System:

The prosperity of an agricultural country depends to a large extent on its irrigation system and the water supply owing to the insufficient rainfall, most part of the Tamilnadu depends upon some form of irrigation.

Tamilnadu can be proud of some of the oldest example of irrigation works in the country. The grand anicut (kallanai) built in the second century AD across Cauvery river. It is considered to be the greatest engineering feat in ancient Tamilnadu and it is still operational. We can be equally proud of the indigenous and extensive system of tanks in Tamilnadu which have been designed many centuries ago to utilise river and rain water for agriculture.

Generally irrigation works are classified as major and minor systems on the basis of its size and usage major works are dams, minor works includes small tank, wells and small canals for instance these are artificial system for irrigation in chola period. Dams and tanks canals were mainly used for the purpose of irrigation. Dams and tanks were provided with sluices to regulate the flow of water. Water first let out in to main channel and then distributed in to the large number of branches.

Master Plan of Irrigation in Kallanai Under the Cholas:

Kallanai was the great and significant dam in Tamilagam, built by chola king karikala son of the Ilamsetsenni, sangam literature tells about karikalan. His capital was Uraiyur. the construction of kallanai was the ultimate Architect of karikalan. kallanai was bounded by Thanjavur, Srirangam, Trichy, and Lalkudi. This ancient dam was constructed by karikalan during the time of second century this dam was mainly utilised to the irrigation purpose. Agriculture is the important work of country is development, maximum determined by irrigation naturally stream and canal are mainly concerned for irrigation thiruvavaduthurai inscription expose about Parakesari and karikala cholan lifted Cauvery river. That is rule this place is fully surrounded by canal and stream than signification of Cauvery river branch in chola inscription.

Historical Perspective of Irrigation System Under the Cholas in Thanjavur District:

Agriculture is the back bone of one nation and Agriculture is based on irrigation facilities from, Ancient times the south Indian kings advised on the time of need for irrigation, first of all irrigation facilities, depended upon the natural streams and canals during the Cholas Region this events are mentioned thiruvaduthurai inscription means repair of sides in Cauvery river by Parakesari Cholan prospective of Cholas land based on Cauvery river in and around region. Thanjavur may be here not natural streams and river means their build the lake by Cholas.

Mode of Irrigation in Thanjavur Under the Cholas:

The Cholas followed to me forms of irrigation in Thanjavure region, Tamilnadu consists of lakes, wells, channels, tanks and canals But Cholas followed the artificial irrigation facilities such as lakes and wells.

The great Tamil epic Silapathikaram clearly mention about the irrigation system of cholas. Due to severe drought in the country the chola king karikalan took some measures to bring the water to his country, and probably he was the earliest king who realised the need of irrigation.

Tamilnadu depends on the existence of some forms, of irrigation system. It has a number of rivers like Cauvery, vaigai, pennar, periyar. It helped to irrigate millions acres of land in during Chola period.

Irrigation and agriculture both are two Sides of the same coin. Generally irrigation depends upon the rivers, wells, canals, tanks and lakes Cholas were the first to realise the importance of irrigation they constructed many number of reservoirs and changed the dry lands as cultivable lands with the help of above the artificial irrigation.

Some minor rivers are utilised either through channels into which water flows through canals into which water is made to flow from storage or obstructive constructions such as dams, anicuts and bed regulators, tanks can be slowly rain-fed or they may be supplied in addition by rivers or by flow from others tank in an upper reach. In many areas, notably in periyar, vaigai system two additional storage provided by tanks lends support to river-based irrigation. Tanks also function as a source of re-charge for wells located in their anicut. Wells supply the sole source of irrigation to a field or they may supplement water available from rivers or tanks. Thus the three modes get inter linked and re-inforce each other in many situations.

Canal Irrigation:

Irrigation in Tamilnadu has been practised and progressively developed for more than two millennia, the irrigation works especially canals reflect the stage of development in technology in the different period of their construction, storage have already been erected across most of the rivers in the state. There are instance where canals with open heads have controlled outlets for irrigation. They are very expensive to construct but they help to irrigate very large areas of land. There are three types of canals. viz., perennial, canals, inundation canal and storage work canals. Perennial canal those which take of water directly from a river and provide water for irrigation throughout the year. Inundation canals take of from the river but have water only during rainy reason. Storage work canals take on from a dam be or storage works. This may be constructed across a river or valley. Thanjavur one of the most fertile land in chola period it's main coarse flow the Cauvery river in their land. During the period area irrigable by the Cauvery canals is in round figures 920,000 acres and that irrigable by the kollidam channels 18,000. Only one crop is grown on most of this land.

One of the best example of canal irrigation is uyyamkondan canal it is one of the thousand years old chola Architect presently this canal was renovbated. This canal was built by Rajarajacholan in Trichirapalli the canal which originate from Cauvery near Pattavaithalai and traverses about 70th km up to Uazhavanthankottai tank and irrigate about 32000 acres. But presently this canal is totally followed in dumping of soiled water.

Tank Irrigation:

Tanks and other catchments refer to the storage of flood water flowing in river or directly of rain water and have been used for irrigation. The irrigation tanks are of all sizes, managing from large lakes to village ponds. Tank irrigation has been the most common in Deccan but most tanks are old and silted. They are mostly constructed and maintained by the government, through village tanks may, sometimes, be looked after by the village jointly, in recent years, state government have been directing their efforts to desalting of old tanks. 920,000 acres and that irrigable by the Kollidam channels 18,000 only one crop is grown on most of this land tank irrigation is chiefly confined to the non-deltaic parts of Thanjavur, Mannargudi, and Puttukottai. A few rivers cross the pattukkottai talk, but they are mostly torrential in character and are only utilised to a small extent to fill tanks, and not for direct irrigation. Tanks are plentiful in this tract, but it contains only a very small area irrigated from the Cauvery.

Well Irrigation.

Well Irrigation has been practised in TamilNadu from time immemorial. It is one of the cheapest means of irrigation in ancient Tamil country. Cholas gave more importance to well irrigation in and around Thanjavur district. The scarcity of surface water supplies can be solved by the method of ground water irrigation or well irrigation .The wells are various kinds .In Pattukkotai Taluk and Orattanadu Where the sub-soil supply of water is said to be exceptionally good, they are generally shallow unrepeated pits Which are annually renewed or abandoned. These in other Taluk are generally of a better and more permanent character. Wells are common in Tirutturaipundi and Pattukkotai Taluks, According to the latest returns There were some five thousand in The latter and nearly four Thousand in the former. The chola period had dominant role of well irrigation in Thanjavur district.

Lake Irrigation”

Lake irrigation was one of the artificial irrigation systems in Chola Period. Veranam Eari [Lake] had famous lake in Chola Period. During The time of king Parantaka-1 [907-953 A.D] of the chola Dynasty. A big Tank was constructed and it was named as ‘veranam Eri’ This Eri was named after the little of king Parantaka-1 this was the first major irrigational woks. This region This veranam Lake lies near Kattumannarkovil Where The king Parantaka-1 constructed The Temple of land Vishnu. The Performance of well irrigation varied from this region depends upon the availability of ground water.

Veeranam lake was built in the 10th century during the time of greater cholas, from 407-955 AD. It was created by Aaditya chola. The named it after a little of his parantaka I chola. This veeranam lake gets water from kollidam via vadavaru river. The lake remains dry for major part of the year. ‘ponniyan selvan’ literature also

explain this lake. It is called as ‘gift of the Chennai city’. The lake draws water from the Cauvery river. The lake has a capacity to store about 1.465mcf of water. This water released from the mattur dam through kollidam and lower anicut would also bring in sufficient in flow in to the veeranam lake.

The lake received sufficient inflow in April enabling supply to the city for three month with hoary rain in water chats, the lake almost got it’s storage capacity as it received. Inflow from the Cauvery tributaries bhavani and Amaravathi lake actually based on seasonal rainfall.

Conclusion:

Agriculture is the major occupation in ancient Tamil country. Agriculture depends upon the irrigation facilities. Irrigation and agriculture are the both sides of same coin. Especially Thanjavur is known as ‘rice bowl’ of Tamil nadu state. This is because river Cauvery flows in and around Thanjavur. During the Chola period Thanjavur had the most fertile land in Tamil country. During this period the cauvery passed around 500 miles from its source in neighbouring Mysore state to its outlet in eastern Thanjavur. Altogether the Cauvery and its tributaries irrigate about 1,700,000 acres in ancient Tamil country. More than two – thirds of the delta area is concentrated in Tanjavur. During Chola period there were different artificial irrigation system such as lakes, rivers, canals, tanks, wallet. But during Chola period more importantance were given for lake and well irrigation. Some chola inscriptions also mentions about Cauvery river and its tributaries, this caused the prosperity of Chola Kingdom in all aspects.

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