

An Overview of Cauvery Delta Zone in TamilNadu

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Abstract-- Tamilnadu is one of the economically well equipped state in the nation with major core industries and agro based industries. Tamilnadu also considered as agriculture consists state with the adequate cultivatable lands and irrigation facilities. Cauvery delta place of Tamilnadu is considered as “Nerkalanchiyam” (Land of Paddy cultivation). With this aspect, the present study is describing the wealthy profile and the highlights of the Cauvery delta region of Tamilnadu.

Keywords-- Irrigation, Cultivation, Delta Zone, Agro Industries, Agro Products

I. INTRODUCTION

Cauvery Delta Zone (CDZ) lies in the eastern part of Tamilnadu. It is bounded by the Bay of Bengal on the east and polk straight on the south, Trichy district on the west, Perambalur, Ariyalur districts on the north west, Cuddalore district on the north and Pudukkottai district on the south west. Cauvery delta zone has a total geographical land area or 14.47 lakh hectare. The east while Thanjavur district (comprised Thanjavur, Tiruvarur, Nagapattinam) occupies 5 per cent of Cauvery delta zone followed by Trichy, Ariyalur, Cuddalore and Pudukkottai districts.

A. Cauvery River

Cauvery is one of the holistic and great rivers in India. The origin of the river is Talakaveri, Kodagu in Karnataka flows generally south and east through Karnataka and Tamil Nadu and across the southern deccan plateau through the south eastern lowlands, emptying into the Bay of Bengal through two principal mouths in Poompuhar, Tamil Nadu.

B. Cauvery Basin

The Cauvery basin is estimated to be 81,155 square kilometres (31,334sq mi) with many tributaries including the Shimsha, the Hemavati, the Arkavati, Honnuhole, Lakshmana Tirtha, Kabini, Bhavani river, the Lokapavani, the Noyyal and the Amaravati river. The river's basin covers four states and union territories, as follows: Tamil Nadu, 43,856 square kilometres (16,933 sq mi); Karnataka, 34,273 square kilometres (13,233 sq mi); Kerala, 2,866 square kilometres (1,107 sq mi), and Puducherry, 160 square kilometres (62 sq mi). Rising in south western Karnataka, it flows southeast some 800 kilometres (500 mi) to enter the Bay of Bengal. East of Mysore it forms the island of Shivanasamudra, on either side of which are the scenic Shivanasamudra Falls that descend about 100 metres (330 ft). The river is the source for an extensive irrigation system and for hydroelectric power. The river has supported irrigated agriculture for centuries and served as the lifeblood of the ancient kingdoms and modern cities of South India.

C. Cauvery Delta Zone in Tamilnadu

In the Cauvery delta zone, rice is the principal crop. In the rice based cropping system, it is either single or double cropped. Pulses, blackgram and greengram are next importance grown in the rice follows throughout the delta region from January

onwards. Gingelly is also sown in April in prepared fields subsequent to summer showers. In addition money crops, flowers also major crops in the Cauvery delta region.

Vegetables like brinjal, chillies and greens are grown during summer months in limited area in the well drained fertile lands depending upon the underground water sources. In light clay soils under garden land condition is brought out where crops like groundnut, maize, gingelly and irrigated pulses and altered. Banana, sugarcane and ornamentals like jasmine, rose, chrysanthemum, crossandra and arali are the annuals occupying the land for more than one year for the successive returns. Coconut gardens, bamboo and wood lots are scattered in the delta in different densities. Mango, jack, citrus, guava, pomegranate, custard, apple etc., are the more prevalent fruit trees in addition to cashew in specific pockets.

D. Grand Anicut

Grand Anicut is the land mark of Cauvery delta region which play a key role in distribution of Cauvery water to all the places in the region. The Chola king Karikalan has been immortalised as he constructed the bank for the Cauveri all the way from Puhar (Kaveripoompattinam) to Srirangam. It was built as far back as 1,800 years ago or even more. On both sides of the river are found walls spreading to a distance of 330 metres (1,080 ft). The Kallanai dam constructed by him on the border between Tiruchirappalli and Thanjavur, made with earth and stone, survived for hundreds of years. Even now it becomes a strong and functioning with full capacity.

In the 19th century, it was renovated on a bigger scale. The name of the historical dam has since been changed to “Grand Anicut” and stands as the head of a great irrigation system in the Thanjavur district. From this point, the Kollidam River runs north-east and discharges into the sea at Pazhaiyar, a little south of Chidambaram. From river Kollidam, Manniar and Uppanai branch off at lower Anicut and irrigates a portion of Mayiladuthurai taluk and Sirkazhi taluk in Nagapatnam District. After Grand Anicut, the Kaveri divides into numerous branches and covers the whole of the delta with a vast network of irrigation channels in Nagapatnam and Tiruvarur districts and gets lost in the wide expanse of paddy fields.

II. PROFILE OF CAUVERY DELTA DISTRICTS

A. Tiruchirappalli

The district has an area of 4403.83 sq.km, it is bound by Perambalur district on the north, Thanjavur district on the east, Pudukkottai and Dindigul districts on the south and Karur district on the west. Being a place located centrally in the state, it has excellent transport link to all other districts in the state.

Trichy district has a mean temperature with low humidity. The hottest period is from April to June. The river Cauvery irrigates about 51,000 ha in Trichy, Lalgudi and Musiri divisions. Multi various crops are grown in this district and

agriculture is the main occupation for most of the people in the district. Alluvial sandy loam and loam soil constitutes major portion of the central regions, which from the Cauvery delta in the district. In Ialugudi, Manachanallur and Andanallur blocks loamy soil is predominant in the dry tracks of the district.

Tiruchirappalli district is located centrally in Tamilnadu. Public sector companies like BHEL, HAPP, OFT and Railway workshop functions here. The district is renowned for fabrication industry. Gem cutting, korai mat weaving and readymade garments.

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B. Thanjavur

Thanjavur district is the rice bowl of Tamilnadu. The district stands unique from time immemorial for its agricultural activities and is rightly acclaimed as the granary of the south India.

Thanjavur district is located in the eastern coast of Tamilnadu. Erstwhile composite district of Thanjavur was bifurcated into Thanjavur and Nagapattinam districts with effect from 18.10.1991. Again in April 1997, when Thanjavur district was formed by bifurcating Nagapattinam district, part of Thanjavur area, namely the Valangaiman block had been merged with the newly formed Tiruvarur district. Thus the present Thanjavur district was formed with a geographical area of 3396.57 sq.km divide into 14 blocks. The area constitutes just 2.6 percentage of the area of the state.

In this district has alluvial soil in the Cauvery delta and sandy soil in coastal area are the predominant soil types. The soil type, the climate and rainfall best suit the paddy crop and so the district stands as the rice bowl of Tamilnadu since ancient days.

C. Tiruvarur

Tiruvarur district was formed on 01.01.1997 by carving out nine blocks from the composite Nagapattinam district and one

block from Thanjavur district with Tiruvarur as district headquarters.

More than 70 percentage of the total workforce is dependent upon agriculture. Around 14 per cent are cultivators and the rest are agricultural labourers. Normal area under cultivation is around 74 percentage of the geographical area. Paddy is the principal crop of the district. It accounted for nearly 65 percentage of the gross cropped area. The district forms part of the rice bowl of Tamilnadu.

It is very small district with a total geographical area of 2097.09 sq.km, this constitutes just 1.6 percentage of the area of the state. The entire district contains plain land only. Predominant soil types in the district are sandy, coastal alluvium and red loam. These types of soils are very fertile. Cauvery is the main river flowing in this district. Vennar, Vettar, Koraiyar, Paminiyar, Mullaiyar, Harichandra Nadi, Arasalar, Vanchiar, Nattar are some of the seasonal rivers flowing in this district. Canals extending to a length of around 612 kms supported by the Cauvery system irrigate the entire district.

D. Nagapattinam

Nagapattinam district was carved out of erstwhile Thanjavur district on October 18, 1991. Subsequently it was bifurcated in 1997 as Nagapattinam and Tiruvarur districts. It is a very small district with a total geographical area of 2715.83 sq.km, this constitutes just 2.09 percentage of the area of the state.

Agriculture is the principal occupation in the district nearly 65.42 percentage of the total work force is dependent upon agriculture. Nearly 12 percentage cultivators and the rest 54 percentage are agricultural labourers. 55 percentage of the geographical area constitutes net sown area in the district. Paddy is the principal crop of the district. It accounted for nearly 66 percentage of the gross cropped area.

District capital Nagapattinam lies on the eastern coast, 350 kms down south of the state capital Chennai and of Tiruchirappalli. Coastal length of the district is 188 kms. Nagapattinam has a coastal area spreading upto 165 kms and marine fishing is practiced in almost 60 villages along the coastline. The district is deprived of any major industries but it is a flourishing centre of cottage and handicrafts industry. Madras refineries limited are the major refinery unit located in the district. Sandy coastal alluvium is the predominated soil type. Cauvery and Vennar are the main rivers flowing in this district. Paddy is the main crop of this district.

Table 1: Administrative units in Cauvery delta districts of Tamilnadu

S.No	Administrative Units	Thiruchirappalli	Thanjavur	Tiruvarur	Nagapattinam
1	Corporation	01	01	01	01
2	Revenue Division	03	03	02	02
3	Municipalities	03	03	04	04
4	Taluks	11	08	07	07
5	Blocks	14	14	10	11
6	Town Panchayats	18	22	07	10
7	Revenue Villages	507	906	573	523
8	Village Panchayats	408	589	430	434

Source: MSME Annual Report 2012-13

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marine fishing is practiced in almost 60 villages along the coastline.

Table 2: Population details in Cauvery delta districts of Tamil Nadu

District	Total	Men	Women
Thiruchirappalli	2713858	1347863	1365995
Rural	1377009	684825	692184
Urban	1336849	663038	673811
Thanjavur	2402781	1183112	1219669
Rural	1552325	765784	986541
Urban	850456	417328	433128
Tiruvarur	1268094	627614	640478
Rural	1009411	500543	508868
Urban	258683	127073	131610
Nagapattinam	1614069	797214	816855
Rural	1250291	618594	631697
Urban	3637778	178620	185158

Source:Census 2011

As per the census of 2011, in Thiruchirappalli district total population were 2713858 of which 1377009 in rural and 1336849 in urban. As per the census of 2011, in Thanjavur district total population were 2402781 of which 1552325 in rural and 850456 in urban. As per the census of 2011, in Thiruvarur district total population were 1268094 of which 1009411 in rural and 258683 in urban. As per the census of 2011, in Nagapattinam district total population were 1614069 of which 1250291 in rural and 3637778 in urban.

Table 3: Agricultural land details in four major Cauvery delta districts of Tamilnadu

District	Total Area	Forest	Non-Agricultural Land	Cultivable Barren Land	Net Sown Area
Thiruchirappalli	440383	36773	97696	7272	166667
Thanjavur	339657	3414	14700	14975	219331
Tiruvarur	209709	12057	370442	3478	146472
Nagapattinam	271583	5800	47725	33418	--

Source: 1. MSME Annual Report 2012-13, 2. Revised District Profile-NABARD 2012.

Multi various crops are grown in this district and agriculture is the main occupation for most of the people in the district. Alluvial sandy loam and loam soil constitutes major portion of the central regions, which from the Cauvery delta in the district. In lalgudi, manachanallur and anallur blocks loamy soil is predominant in the dry tracks of the district.

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Table 4: Major Agricultural crops in Cauvery delta districts of Tamil Nadu

Trichy	Thanjavur	Thiruvarur	Nagapattinam
Paddy	Paddy	Paddy	Paddy
Cholam	Sugarcane	Blackgram	Blackgram
Pulses	Groundnut	Greengram	Greengram
Groundnut	Gingelly	Groandnut	Sugarcane
Sugarcane	Maize	Gingelly	Grondnut
Banana		Arecanut	Maize
Tapioca		Coconut	Mango
		Tamarind	Banana
			Cashew

Source: 1. Agriculture profile 2011, 2. Revised District Profile-NABARD 2012.

In Trichy district paddy is the major crops followed by cholam, pulses, Groundnut, Sugarcane, Banana and Tapioca etc. In Thanjavur district paddy is the major crops followed by Groundnut, Sugarcane, Ginjelly and Maize etc. In Thiruvavur district paddy is the major crops followed by Blackgram,

Greengram, Grounut, Ginjelly, Arecanut, Coconut and Tamarind, In Nagappattinam district paddy is the major crops followed by Blackgram, Greengram, Groundnut, Sugarcane, Ginjelly, Maize, Mango, Banana and Cashew etc.

Table 5: Major Agro Based Industries in Cauvery delta districts of Tamil Nadu

Trichy	Thanjavur	Thiruvavur	Nagappattinam
Rice Mill	Rice Mill	Rice Mill	Rice Mill
Oil Mill	Sugar Factory	Edible oil Mill	Oil Mill
Flour Mill	Paper Board	Fertilisers	Cotton textiles
Dal Mill	Coir based industries	Seed industry	
Sugar factory	Oil Mill	Cotton Mill	
Fruits and Beverages		Beverages units	
Spices (Masala/ Paste)			
Cotton Mill			
Animal Feed			

Source: Agriculture profile 2011, 2. Revised District Profile-NABARD 2012

In Tiruchirappalli district rice mill is the major agro based industries in the Cauvery delta region apart from that in Tiruchirappalli district consist of Oil Mill, Flour Mill, Dal Mill, Sugar Factory, Fruits and Beverages, Spices and Cotton Mill and Animal Feed etc. Tiruchirappalli district is located centrally in Tamilnadu. Public sector companies like BHEL, HAPP, OFT and Railway workshop functions here. The district is renowned for fabrication industry. Gem cutting, Korai Mat weaving and Readymade Garments.

In Thanjavur district Rice Mill is the major agro based industries in the Cauvery delta region apart from that in Thanjavur district consist of Oil Mill, Sugar Factory, Paper Board and Coir Based Industries etc.

In Thiruvavur district Rice Mill is the major agro based industries in the Cauvery delta region apart from that in Thiruvavur district consist of Oil Mill, Fertilizers, Seed Industry, Beverages and Cotton Mill etc.

In Nagappattinam district Rice Mill is the major agro based industries in the Cauvery delta region apart from that in Nagappattinam district consist of Oil Mill and Cotton Mill etc. The district is deprived of any major industries but it is a flourishing centre of cottage and handicrafts industry. Madras refineries limited are the major refinery unit located in the district. Sandy coastal alluvium is the predominated soil type. Cauvery and Vennar are the main rivers flowing in this district.

Table 6: Major Research Institutions in Cauvery Delta Districts

Since the Cauvery delta is agriculture consist area, the following agro based institutions are located in this region.

District	Place	Educational Institutions
Thiruchirappalli	NavalurKuttappatu	AnbilDharmalingam Agricultural College and Research institute
Thiruchirappalli	Kumulur	Agricultural Engineering College and Research institute
Thanjavur	Eachangottai	Agricultural College and Research Institute
Research Institutions		
Thiruchirappalli	Thogaimalai	National Research Centre for Banana – NRCB
Thanjavur	Kattuthottam	Soil and water manufacturing research institute
Thanjavur	Thanjavur	Indian Institute of Crop Processing and Technology
Thanjavur	Aduthurai	Tamil Nadu rice research institute –

Source: Agriculture profile 2011

CONCLUSION

Cauvery delta zone is the rice bowl of TamilNadu. It is considered as the agricultural state with adequate cultivatable lands and irrigation facilities. Paddy is the principal crop cultivated and harvested in Cauvery delta districts and other products includes banana, sugarcane, pulses, blackgram, greengram, groundnut, ginjelly, maize variety of vegetables and fruits etc.,

Most of the agricultural production and irrigation in these areas has done through the Cauvery water and the supported water resources. Cauvery river playing a crucial role in the agriculture production and lending raw materials to the agricultural industries. It generates much more employment opportunities to the literate and illiterate peoples through

agricultural and industrial units. Therefore, Cauvery delta zone is unique in nature to preserves its position to satisfy the needs and claims of the general public in and around Tamilnadu.

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