CHAPTER VI

Economic conditions of the people in Kancheepuram District
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ECONOMIC CONDITIONS OF THE PEOPLE IN KANCHEEPURAM DISTRICT

Since independence, Indian policy-makers focused on rural development in response to Gandhi’s call that “India lives in its villages”. This focus was also justified by the fact that agriculture is subject to high risks from independence on nature. As a result, urban poverty was sidelined because the urban poor were seen as people who had greater access to opportunities in dynamic urban system and were therefore exposed to less serious uncertainties. The choice made was to address the graver ill first.

Rural poverty could not be ignored for very long as rural centers and poverty within them grew. The National Commission on Urbanization recommended that the government should adopt an integrated approach to address poverty in rural and urban areas. This was because rural and urban economies are interdependent and failure in any one sector will cause failures in the other sector. While the change in approach is an improvement that reflects the magnitude of the problem.

According to the National Commission on Urbanization, the share of municipal expenditure of the overall government expenditure (sum of center, state and local) was only 8 percent in 1960-61 and fell to 4.5 percent in 1980-81. Over the same period, the urban population rose from 16 percent to almost 24 percent. As urban poverty grows, policymakers must understand that its cause is not simply unchecked rural poverty, but other causes as well.
As the population in urban areas raised faster than its infrastructure facilities, attempts were made to stall the migrant population in rural areas through the launch of many rural poverty alleviation programs. Another approach to curb rural-urban migration was to create suitable conditions for the migrant population to settle in small and medium towns by developing infrastructure amenities in these areas. The main approach was to create employment opportunities for the educated unemployed in towns with less than 5 lakh population, that have the potential of being regional growth centers, through programmes like the Integrated Development of Small and Medium Towns.

In the early 1980’s the Government of India launched the Integrated Rural Development Program (IDRP), a large poverty alleviation credit program, which provided government-subsidized credit through banks to the poor. It was aimed that the poor would be able to use the inexpensive credit to finance themselves over the poverty line. Also during this time, National Agricultural Banking And Rural Development (NABARD) conducted a series of research studies independently and in association with a leading NGO from Southern India, which showed that despite having a wide network of rural bank branches servicing the rural poor, a very large number of the poorest of the poor continued to remain outside the fold of the formal banking system. These studies also showed that the existing banking policies, systems and procedures, and deposit and loan products were perhaps not well suited to meet the most immediate needs of the poor. It also appeared that what the poor really needed was better access to these services and products, rather than cheap subsidized credit. Against this background, a need was felt for alternative policies, systems and procedures, savings and loan products,
other complementary services, and new delivery mechanisms, which would fulfill the requirements of the poorest, especially of the women members of such households. The emphasis therefore was on improving the access of the poor to micro finance rather than just micro-credit.

**Role of Agriculture in Indian Economy**

Agriculture plays the most crucial role in the country’s economic development. Providing food and raw materials, employment to a vast proportion of population and capital for development are the most needed. The agrarian sector occupies a vital place in the overall economy of the country. A large share of the national income come from this sector and agriculture also plays an important part in the realm of international trade. In the 1950’s the Share of Agriculture in the total income has been 50% but has declined to 30% in 1986.¹

**6.1. Five Year Plans**

The guiding principles of Indian planning are provided by the basic objectives of growth, modernisation, self-reliance and social justice. Within this framework, each five-year plan involves some directional changes to take into account new constraints and new possibilities.

**The First Five Year Plan (1951-56)**

The plan was mainly focused towards the increase in agricultural production and the strengthening of economic overheads through the development of irrigation, power and transport. The significant future of agricultural planning during the first five years was that work was organized completely by the State
Governments. The State Government managed both irrigation and power projects with the Central government giving general assistance through co-ordination. The Planning was such that the full advantage reached a peak after a period of 15 to 20 years. Not only agricultural production but also all round development of rural life were the primary objects of this plan.

Out of the total plan out lay of Rs.1950 crores, agriculture and allied sectors such as irrigation, power, and village and small industries together accounted for 46.7 percent. The favourable weather conditions at the time opened up successful possibilities for the country to progress on the path of self-reliance in the area of food grains

Second Five Year Plan (1956-1961)

The successful completion of the first five year plan provided the impetus for the second five year plan. There was optimism that adequate food and raw materials for a growing industrial economy would be made available, with possibilities of large supplies of agricultural commodities being exported.

The second five year plan witnessed a close inter-dependence between the agricultural and industrial sectors. Out of the total expenditure of Rs.4672 crores envisaged in this plan, agricultural and allied sectors accounted for only 34.6 percent. However, the according of priority to agriculture, next to industries, left the second five year planners wise to the harsh reality that Indian Economy was interlinked very closely with agriculture, and crop failure meant lethargy of economic activity all round.
Third Five Year Plan (1961-1966)

The Plan document itself noted that “the rate of growth in agricultural production is one of the limiting factors in the progress of Indian Economy”. Adequate resources had to be provided in order to realize agricultural targets.

Technical programs related to (i) irrigation (ii) soil conservation, dry farming and land reclamation (iii) the supply of fertilizer and manure (iv) seed multiplication and distribution (v) plant protection and (vi) better ploughs and improved agricultural implements, and the adoption of agricultural practices, were all organized during this plan. The plan laid stress on the “Largest measures of participation on the part of the local communities and to reach to many families as possible through the village production plan”.

The Third Plan allowed the agricultural sector to have 38.12% of the total expenditure.

The Fourth Five Year Plan (1969-1974)

The plan was evolved with the twin objectives of (i) providing the conditions necessary for a sustained increase about 5% per annum over the decade 1969-1978 and (ii) to enable large sections of rural population, as for possible, to participate in the development progress and to share its benefits.

Maximum production and remedying imbalances were the two essential areas aimed at for agricultural development. With the percentage share of 33.4% of the total plan expenditure, the intensive production strategy of the fourth
five year plans, however, revealed certain fundamental deficiencies. The high yield variety programme showed that the impact was mainly on wheat and bajra and not so much on rice and jower. The progress of maize too was patchy. Steps were taken to identify the weaknesses in rice production and this led to the introduction of new varieties, specially developed with the regional agro climatic preferences. The main obstacle of progress was identified as poor water management, especially in the irrigation command areas of medium and major irrigation projects in the country.

Sixth Five Year Plan (1980-1985)

The plan explicitly recognized the dependence of Indian Economy on the growth of agricultural and rural development. The plan targeted an annual growth rate of 4.2% in the production of food grains, 5% in oilseeds, 4.1% for cotton. The imbalance in the production between rice and wheat and between cereals and pulses, however, continued.

Since the study period includes only one year of the seventh five year plan, this plan is not evaluated in detail. However, during this plan period the projected annual growth rate is 4.1% in terms of value added. Special efforts were made during this plan period to affect a breakthrough in rice output. A total sum of rupees 47035 crores were incurred for agriculture and allied sector development, which is 21.17% of the total plan outlay.

Kancheepuram district is essentially an agricultural district. The agricultural prospects of the district depend upon the local rainfall. Paddy forms the back-bone of the district economy. Groundnut, Ragi, Cumbu, Sugarcane, and
pulses are other important crops that are grown in this district. Gingelly and chillies are also grown in certain pockets of the district. The concentration in the field of agriculture is evident from the fact that 65.22 percent main workers are engaged in agriculture and allied activities and 35.62 percent of the geographical area is under cultivation. The availability of cultivated land per head of agricultural population is 0.40 hectare as against the state figure of 0.50 hectare. This district generally presents a flat surface and the land seldom rises to an elevation of more than 300 feet, and in many places near the coast, it sinks below the sea level. Long reaches of blown sand, often separated from the main land by backwaters, from the chief features of the coast scenery, while inland, great expenses of flat rice plains interspersed with groves of coconut and tamarind trees in which lie the villages of riots, and sandy or stony wastes and prairies of poor pasture land, constitute the principal varieties of landscape. The sandy loams form 50 percent of the area while the clay loams, sandy soils and red soils occupy 25.20 percent and five percent respectively.

**Seventh Five Year Plan (1985-1990)**

The Seventh Plan, as stated in the Approach Paper approved by the National Development Council, seeks to emphasise policies and programmes which will accelerate the growth in foodgrains production, increase employment opportunities and raise productivity.

The central element in the development strategy of the Seventh Plan is the generation of productive employment. This will be achieved through increase in cropping intensity made possible by increased availability of irrigation
facilities, extension of new agricultural technologies to low productivity regions and to small farmers, through measures to make the rural development programmes more effective in the creation of productive assets, through the expansion of labour intensive construction activities for providing housing facilities, urban amenities, roads and rural infrastructure, through the expansion of primary education and basic health facilities and through changes in the pattern of industrial growth. With this emphasis on the generation of productive employment, the Seventh Plan aims at a significant reduction in the incidence of poverty and an improvement in the quality of life for the poor in the villages and towns. There is also a need to generate employment opportunities for educated youth in rural areas. The expansion of education and health facilities will open up job opportunities and the spread of credit institutions and other developmental activities will create opportunities for self-employment.

The development strategy of the Seventh Plan and the pattern of growth emerging from it are expected to lead to a reduction of poverty at an even faster rate. The percentage of population with a consumption standard below the poverty line is expected to come down from an estimated 36.9 percent in 1984-85 to 25.8 percent in 1989-90. In absolute terms, the number of poor persons is expected to fall from 273 million in 1984-85 to 211 million in 1989-90, the bulk of this improvement being in the rural areas.

**Eighth Five Year Plan (1990-1995)**

The Eighth Five Year Plan endeavoured to undertake re-examination and reorientation of the role of the Government as well as the process
of planning. It tried to work out the ways and means of involving people in the developmental task and social evolution. It had strengthen the people’s participatory institutions. In keeping with these objectives, the process of planning had to be re-oriented so as to make planning largely indicative. This, in turn, implied a somewhat changed role for the Planning Commission. The Planning Commission had to concentrate on anticipating future trends and evolve integrated strategies for achieving the highest possible level of development of the country in keeping with the internationally competitive standards.

The Eighth Five Year Plan was being launched at a time which marks a turning point in both international and domestic economic environment. All over the world centralised economies are disintegrating. On the other hand, economies of several regions are getting integrated under a common philosophy of growth, guided by the market forces and liberal policies.

**Ninth Five Year Plan (1997-2002)**

The Ninth Five Year Plan, launched in the 50th year of India’s Independence, will take the country into the new millennium. Much has happened in the fifty years since independence. The people of India have conclusively demonstrated their ability to forge an united nation despite its diversity, and their commitment to pursue development within the framework of a functioning, vibrant and highly pluralistic democracy.

The Approach Paper to the Ninth Five Year Plan, adopted by the National Development Council, had accorded priority to agriculture and rural
development with a view to generating adequate productive employment and eradication of poverty; accelerating the growth rate of the economy with stable prices; ensuring food and nutritional security for all, particularly the vulnerable sections of society; providing the basic minimum services of safe drinking water, primary health care facilities, universal primary education, shelter, and connectivity to all in a time bound manner; containing the growth rate of population; ensuring environmental sustainability of the development process through social mobilization and participation of people at all levels; empowerment of women and socially disadvantaged groups such as Scheduled Caste, Scheduled Tribes and Other Backward Classes and Minorities as agents of socio-economic change and development; promoting and developing people’s participatory bodies like Panchayati Raj institutions, co-operatives and self-help groups; and strengthening efforts to build self-reliance.

**Tenth Five Year Plan (2002-2007)**

The Approach paper to the National Tenth Plan, as approved by the National Development Council on 1\textsuperscript{st} September 2001, proposed that Tenth Plan should aim at 8% GDP growth per annum for the period 2002-2007, as a first step to doubling the per capita income over a period of 10 years. The Draft Tenth Five Year Plan of the Government of India has been approved by the Union Planning Commission on 5\textsuperscript{th} October 2002.

In concord with the National Plan, the Tamil Nadu’s Tenth Five Year Plan has been drawn envisaging the same growth rate as for national economy. The goal is to make Tamil Nadu the Best State in the country during the
Tenth Five Year Plan. The aim is to provide opportunities for a healthy and productive life for all.

Eleventh Five Year Plan (2007-2012)

The 11th Five Year Plan for the State is focused on achieving a growth rate of 9% during the 11th Plan period. The central objective of the Plan will be “to safeguard the livelihood of the population and to improve the living conditions in the rural and urban areas of the State. “The Plan will emphasize not only the rate of economic growth, but also the nature and pattern of growth, so as to set right the imbalances and disparities in the State Economy.

The eleventh Five Year Plan proposes to dwell upon the major issues of concern, which have to be addressed by the State Government during the Plan period with the revitalization of the agriculture sector in the State at the top. The agriculture sector has been in a state of crisis during the preceding few years. The contribution of the agriculture sector to the GSDP has declined from about 25% in 1993-94 about 12.7% in 2005-06 without a corresponding reduction in population dependent on agriculture.

In the social sector, the Eleventh Plan proposes to achieve significant improvement in the human development index and to bridge the gaps and disparities in the level of development between districts. On the health front, emergency obstetric services will be geared up to reduce infant and maternal mortality rates and the public health system in urban areas will be strengthened.
6.2. Land Utilization Pattern:

Table 6.8 Pattern of Land Use in Kancheepuram District, 2008-09

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Classification</th>
<th>Area(in hec,)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Geographical area</td>
<td>786143</td>
</tr>
<tr>
<td>2.</td>
<td>Forest</td>
<td>23856</td>
</tr>
<tr>
<td>3.</td>
<td>Barren and uncultivable uses</td>
<td>10948</td>
</tr>
<tr>
<td>4.</td>
<td>Land put to non-agricultural uses</td>
<td>144712</td>
</tr>
<tr>
<td>5.</td>
<td>Cultivable waste</td>
<td>10773</td>
</tr>
<tr>
<td>6.</td>
<td>Permanent pastures and other grazing land</td>
<td>18328</td>
</tr>
<tr>
<td>7.</td>
<td>Current fallows</td>
<td>10343</td>
</tr>
<tr>
<td>8.</td>
<td>Other fallows land</td>
<td>79158</td>
</tr>
<tr>
<td>9.</td>
<td>Net area sown</td>
<td>128410</td>
</tr>
<tr>
<td>10.</td>
<td>Total cropped area</td>
<td>161441</td>
</tr>
<tr>
<td>11.</td>
<td>Area sown more than once</td>
<td>33031</td>
</tr>
</tbody>
</table>

The pattern of land use explains the nature of the economy in a brief manner and its basic thrust in general. The Kancheepuram district's pattern of land use is explained with the help of the data in Table 6.3, pertaining to the year 2008-09. The table shows that the total geographical area of this district is 7.86 lakh hectares, of which 3.0 percent (23,856 hectares) is under forest cover. The barren and uncultivable area is 10,948 hectares, which is 1.4 percent of the total geographical area. The proportion of current fallow is also only 1.3 percent that is 10,343 hectares. The total cropped area or the gross cropped area is 20.52 percent of the total geographical area, which is 1,61,441 hectares in absolute terms, of which 1,28,410 hectares is the net sown area. This shows the significance of the agricultural sector in the overall economy of the district. Area sown more than once which indicates the degree of intensive cultivation is 33,031 hectares, which forms 20.46 percent of the gross cropped area.

**Variety of soils and crop suitability in Kancheepuram district**

Soil is the uppermost layer of the earth’s crust which is capable of supporting plant growth and is immediately underlain by the sub-soil. It is composed of clay, silt, sand, gravel and stones in varying proportions besides organic matter and bacteria and lower forms of plants and animals. The inorganic constituents are the products of weathering of the parent rocks. Clay is composed mainly of hydrated silicate of aluminium and iron; hydrated oxides of aluminium and iron are also present in some soil clays. Residual or sedentary soils are those formed in situ, from the disintegration and decomposition of the parent rocks. In the case of
transported soils, the soil constituents are carried far away from the place of the parent rock, the transporting agency-being, wind, rain-water etc.


Red non-calcareous soils, black soils, alluvial soils, red calcareous soils and coastal alluvial soils are the major soil types in Kancheepuram district.

**Red Non-Calcareous soils**

This type of soil occurs in all taluks except in Kancheepuram where its occurrence is negligible. Paddy is mostly grown both under semi dry and in wet conditions. Groundnut, millets and vegetables are other crops grown in the soils.

**Black Soils**

Black soils are occur in Madurantakam, Cheyyur, Uthiramerur and Chengalpattu taluk and they occur in isolated patches in other taluks. Paddy is grown under both wet and semi dry conditions. Sugarcane, banana, millets and pulses are other important crops grown in the soil. Finger millet (ragi crop) is widely grown.

**Alluvial Soils**

Alluvial soils are predominantly occurring in Kancheepuram taluk. They are found in isolated patches in Chengalpattu taluk. Dry and semi-dry crops
such as groundnut, millets and paddy are mostly cultivated in the soils.

**Red Calcareous Soils**

This type of soils occurs in isolated patches in Sriperumbudur, Chengalpattu, Kancheepuram and Uthiramerur taluks. Paddy, ragi and other millets are grown under irrigated condition. Groundnut and semi dry paddy crops are cultivated under rain fed condition.

**Coastal Alluvial Soils**

They represent two percent of the total area of the district. They form a coastal belt along Cheyyur, Chengalpattu and Thirukazhukundram taluks. Casuarinas is grown more and also a major crop in the soil. Paddy and ragi are cultivated in a smaller area where irrigation facilities are available. Cashew, Coconut, Mangoes, Jack fruits are also cultivated especially in Idaikazhinadu (Panaiyur, Mudaliar Kuppam, Vilambur, Kadappakkam, Vembanur, Kottaikadu Vennangu Pattu and Kaippani Kuppam) in cheyyur taluk.

**Coastal salt affected Soils**

This type of soils occur in Chengalpattu, Thirukazhukundram and Cheyyur taluks along the coastal line to the extent of 142 kilometers. An area of 1,00,426 (approximately) salt affected soil in the district has been assessed.5
Major Agricultural Crops

Plants

Plants are the primary factor of agriculture. Besides plantation, floriculture and vegetable crops, all the cultivated species of cereals and pulses are grown since ages in India. Mention of paddy cultivation in India has been made in Susrutha Samhita dated Ca.1000 B.C. Maize, Jowar, bajra and other millets were also introduced in India in the distant past. As regards pulses, India is the only country where a variety of them are grown.

Crops

Paddy, Sugarcane, groundnut, ragi, gingily and chillies are the important crops raised in this district. Among these paddy is the most important and extensively grown food crop. It is cultivated in widely varying conditions of rainfall, altitude and climatic conditions. It is grown at sea level, in river delta. The practice of paddy cultivation is greatly influenced by the pattern of rainfall distribution. A temperature range of 20°C to 30°C is required throughout the life period of paddy crop.

There are three main seasons for growing paddy and these are named according to the season of harvest of the crop. The most important is the Kharif (winter crop) sown in June and July and harvested in November and December. Paddy is grown in all types of soils ranging from PH 4.5 to 8.0. The soils most suited for the cultivation of paddy are heavy neutral soils like clay. Clayloam and loamy. Such soils are capable of holding water for long and will sustain a good paddy crop. The most important group of soils under which paddy
can be successfully grown are alluvial, red soils, laterite and lateritic soils, black soils, saline and alkaline, peaty and marshy soil.  

There are three agricultural seasons’ sornawari (April-August) Samba (August-February) and Navarai (December-May).  Paddy is cultivated in all these seasons. In Sornawari season, short duration crops are grown and in Navarai season short and medium duration crops are raised. During Samba period, medium and long duration crops are cultivated.  

**Millet – Ragi**

Ragi was grown in an area of 157 hec. In 2007-08. Cattle manure is used for this cultivation.  Co-7 is a short duration high yielding variety yielding 2m. tonnes per acre. After ragi, varagu is another millet which is cultivated in this district. It is cultivated in very meager area and duration of the crops is 130 days.

**Pulses**

The common pulses raised in this district are red gram, black gram, green gram, Bengal gram and horse gram of which black gram occupies the major portion of the area.

**Sugar cane**

Sugarcane is the major cash crop in this district. It played dominant role in the eighties. Next to the cultivation of paddy and groundnut, sugarcane is cultivated most of the taluks in Kancheepuram district. In the eighties it was the main cash crop in this region. Because this district contains a sugar factory which is
situated in Padalam near Madurantakam. Its name is Madurantakam Co-operative Sugar Factory. Now it is closed temporarily due to some internal problems and there is the less production of sugar. With the help of the Five Year Plan schemes, more lands are brought under cultivation every year through irrigation and reclamation done on modern scientific methods. The noteworthy feature of the Fourth Five Year Plan between 1969 -1974 is the IR-8 Paddy Crash Program to cover over 75 percent of the area of the district under high yielding varieties of paddy which has brought about a Green Revolution in agriculture.

**Tamil Nadu Women in Agriculture (TANWA) project**

Tamil Nadu Women in Agriculture Project popularly known as TANWA was started in Tamil Nadu in November 1986. This project is aided by DANISH International Development Agency i.e. DANIDA for a period of seven years with a plan outlay of Rs.3.21 crores. At present this project is implemented in six coastal districts and Kancheepuram district is one among them.

**Objectives of the TANWA Project**

1. To promote the growth rate in agriculture and to strengthen the Farm Women’s position in society.

2. The secure full utilization of women’s potential in the agricultural production on small and marginal holdings thereby improving the productivity and the quality of life of all family members,

3. To provide the farm women with an up to date knowledge of relevant agricultural technologies;
4. To guide them to adopt relevant new technology and give them appropriate skill through practical training, and
5. To encourage them to take the lead and share the skill with other farm women. Selection of farm women, imparting training to them and follow-up activities are the main aspects of this project.

   With the help of this project 30 farm women, based on certain norms, are selected for each training and training is imparted for five days. It is skill based training. A sum of Rs.10/- per day per trainee is paid as stipend. Apart from this, inputs like seeds and seedlings are also distributed to the trainees.

   Involvement of the trained farm women in follow up activities is an important aspect of the training. Based on the needs of the farm women, 4 skill demonstrations are conducted by the training officers (Farm Women) for each training. Apart from this, the trainees are also given technical support as and when required by them. To follow up demonstrations are conducted with financial assistance of Rs.200/- for four demonstrations. Some of TANWA trained women are enrolled as contact farmers in the regular extension system by virtue of training undergone by them. They keep contact with the extension staff and get benefited by the technical knowhow. The training for the farm women has been completed in Kancheepuram and Uthiramerur taluks.

6.3. Agricultural implements and machineries used in the district

   Quite a variety of implements and machineries are required for carrying out various agricultural operations, starting from ploughing to harvesting
and storage of grain. These operations include ploughing, harrowing, leveling, sowing, intercultivation, application of fertilizer and manure, harvesting, threshing and winnowing. The Indian Council of Agricultural Research undertook a country-wide survey for ascertaining the use of indigenous agricultural implements in India. The survey revealed that the number of implements used by Indian farmers is really very large. Some of these implements, even if they look crude, are really useful. To do this effectively, Government of India have established a research-cum-testing centre in each state. The object is to improve indigenous agricultural implements, to design new implements and to test them in the field up to the prototype level.

Agriculturists in the district have become increasingly aware and receptive to modern methods of agriculture, and have gradually been switching over to deep ploughing with tractors, chemical manuring, and use of improved seed and adoption of crop protection methods.

Ploughs, bladed harrows, wheel burrows, levelers, clod crushers, bund farmers, harvesting, threshing implements which are used in other districts in the state are also used here\textsuperscript{10}.

**Fisheries**

Fishery industry is one of the thresholds of dynamic development and is bound to emerge as one of the most potent employers and foreign exchange earners of the country. Tamil Nadu is endowed with vast potential in fishing industry. Kancheepuram district is one of the coastal districts where agriculture and fishing are the important occupations in the coastal tract.
Both inland and marine fishes are available. There are 64 marine fishing villages along the coast line standing from Muttukadu in the North to Alambarai Kuppam in the South. In the coastal area, thousands and thousands of families are engaged in fishing.

**Government Welfare Schemes for Fishermen Community**

For Marine fishing, government has introduced Beach landing boats. Nylon nets and boats are distributed to the Fishermen Community at subsidized rates. Subsidy is granted for construction of Chinese hatcheries, Fish seed cages, by the Fish Farmers Development Agency. (F.F.D.A.). The Fisheries Department implemented rural fishing demonstration scheme, provincialised water scheme and block development scheme for developing pisiculture in the district.

**Irrigation structure of Kancheepuram district**

Irrigation is an age old art, as old as civilization and it is practiced in India from time immemorial. In the early records of the people of India, dating back to many centuries before the commencement of this era, there are frequent references to the practice, of irrigation.

One of the most popular ways of using groundwater is the tube well. The phenomenal growth of tube well irrigation in the alluvial tracts is related to the ease of tapping the water and the fact that its operation is directly under the control of the farmer. This enables farmers to supply adequate amounts of water at the right time to the crops. It may thus be seen that the spurt in the number of tube wells is an indication of the increasing use of groundwater. Withdrawals of
groundwater in excess of the annual recharge for cultivation of water intensive crops will, in the long run, lead to drinking water crisis.

Tanks are the main sources of irrigation in the district. Moreover, the area irrigated by tanks is larger than the irrigable areas coming under well and river channel system. Hence, Kancheepuram district is popularly called as the District of Tanks or Eris. At least every village has one tank, for the purpose of irrigation.

**Industries**

Kancheepuram district which surrounds Chennai city, is a shadow region of Chennai Metropolitan area. In view of its advantageous location, this district commands requisite industrial climate and attracts entrepreneurs from different parts of the country. The parts of Sriperumbudur, Chengalpattu, Tambaram taluks of the district come under the Chennai Metropolitan area. Availability of power, transport and communications, water, labour, marketing, proximity of a major port and other infrastructural facilities pave way for springing up of a large number of industries in the district. Major industries such as automobiles, transport, metallurgical, electrical, engineering, chemicals, and fertilizers are concentrated. These industries contribute for spreading of several ancillary industries and also for the setting up of a number of industrial estates in the district.

Places like, Sriperumbudur, Maraimalainagar, Thiruporur and Vandalur have become industrial towns and many major, medium and small scale industries have emanated in other places as well. The Grand Southern Trunk (GST)
Road which connects the southern districts of Tamil Nadu as well as its neighbouring states. The areas adjoining these highways are fast turning into industrial belts, since a large number of factories and factory sites are situated along them.

Salt Production

Kancheepuram district is coastal district having a coastal line to the extent of 225 km. The manufacture of salt was an important old time industry which gave employment to a large number of people on the coastal areas especially in and around Kovalam (Kelambakkam), Cheyyur and Chunampet. Salt was manufactured here solely by means of solar evaporation. The only requirements necessary to allow a factory being established was the existence of a strata of tough impermeable clay, or the means constructing one, and of a sufficient supply of brine (salt water). The brine derived from the sea was common in those areas of Kancheepuram district.

The salt department was under the control of a Commissioner, assisted by two Deputy Commissioners and seven Assistant Commissioners11.

Paper making

In the later part of 19th Century, paper was manufactured in Kancheepuram district and its manufacture was for the most part done by hand and the process was therefore rude and the paper made was coarse. The materials used in the manufacture were chiefly waste paper, old rags, gunny bags, hemp and aloe. Plantation leaves were also used in some places. There were other materials
available, from which good quality paper could be manufactured. The materials are such as cotton, rice straw, bamboos, refuse of sugarcane and grasses of various descriptions, but they were not used for want of suitable machinery. Since most part of the manufacture was done by hand, the industry had no prospect of manufacture, until machinery was introduced\textsuperscript{12}.

\textbf{Power}

\textbf{Atomic Energy Programmes at Kalpakkam}

In 1962, the coastal village Kalpakkam, 6 km. south of Mahabalipuram and about 55 km. from Chennai, was chosen as the site for India’s third atomic power station. Kalpakkam met the requirements fully—plenty of sea water for condenser cooling, adequate fresh water from Palar river, rocky soil to provide a strong foundation, nearness to a load centre, low density of population in the immediate vicinity, availability of construction materials like sand and aggregates close by and the advantages of a location at a reasonable distance from the city of Chennai. With the co-operation provided by the state government, it was possible to complete site investigations by 1964 and land acquisition by 1966. The 900 hectares of land acquired for plant construction formed part of the villages of Kalpakkam and Edaiyur. The land was mostly non-agricultural, about 500 families were rehabilitated, 100 of whom being fishing families, were resettled on the seacoast at New Kalpakkam, north of Mahabalipuram.

The construction of the diaphragm wall and foundation work for the first unit of Madras Atomic Power Station (MAPS) began in 1967. Construction of
the main plant building commenced in 1970. The plant design has many unique features. These include a 470 m long tunnel under the seabed designed and built with indigenous knowhow, a containment building of pre stressed concrete design, - the first in the country – and an indoor switchyard. The tunnel obviated the need for frequent dredging operations associated with open channel type structures for seawater intake.

The MAPS reactors built at a cost about Rs.400 crore are indigenous with only about 12 percent foreign exchange content. The first unit of the power station was completed in 1983 and was opened by the late Prime Minister Mrs. Indira Gandhi in July that year. The second unit was inaugurated by the late Prime Minister Rajiv Gandhi in December 1985. Together, these two reactors have been feeding on average about two billion units annually into Tamil Nadu grid, with average capacity factor of 60 percent. The reactors have proved their dependability by providing power when hydel generation in the state was affected by poor monsoons and without the anxiety about the daily supply of fuel as in coal fired power stations. A part of the warm sea water discharged from the condenser of the power station is pumped to the Kovalam salt pans located 16 km. to the north. This has helped to revive the production of salt in this region\textsuperscript{13}.

The investments of several hundred crores of rupees in the establishment of the various installations at Kalpakkam site has also provided job opportunities for the local population in construction, fabrication and service activities. The Kalpakkam Centre has contributed to a rapid transformation of the area around it through introduction of transport and communication service. At
Kalpakkam township, there is a bus depot of State Transport Corporation, two branches of nationalized banks and a post and telegraph office, besides a telephone exchange placing Kalpakkam on the STD map of the country.

**Spinning Mills**

The Kancheepuram Kamakshiamman Co-operative Spinning Mills Ltd., was registered on 4th July, 1961 with the object of rural industrialization and supply of good quality yarn at reasonable price to the weavers of handloom industry. The mill is located at Vaiyavur village 3 km. away from Kancheepuram towns in an area of 42.70 acres. The mill was set up under co-operative sector with an installed capacity of 12,000 spindles and with an authorized capital of Rs.45 lakh. The spinning mill is the eighth of the nine new mills established simultaneously as part of the Co-operative Spinning Mills Project in the Third Five Year Plan, went on a stream and started trial production on 25th December 1965. The mill was formally inaugurated on 4, February 1966 with 13680 spindles. In August 1978, the total capacity of the mill increased to 25080 spindles. The production commenced in the mills on 30 June 1966. The total share capital as on that date Rs.20,26 lakhs.

**Sources of Raw Materials**

The procurement required cotton (raw material) for the mill is made through centralized cotton purchase cell of the Tamil Nadu Textile Corporation, Coimbatore. The purchase are made from the Maharashtra State Co-operative Cotton Federation, Gujarat Co-operative Cotton Federation and Punjab Co-operative
Cotton Federation. Further, purchases are also made from local co-operative marketing societies and from private registered cotton traders. The mill is under the administrative control of the Director of Handlooms and Textiles\textsuperscript{15}.

**The Madurantakam Co-operative Sugar Mills Limited, Padalam**

The Madurantakam Co-operative Sugar Mill was registered as Co-operative Society on 4 December 1955 with an authorized share capital of Rs.40 lakh and started functioning on the same date. Kancheepuram, Madurantakam, Cheyyur, Chengalpattu and Uthiramerur taluks of Kancheepuram district constituted the command area of the mills.

**Indra Cotton Mills Limited, Chrompet**

The company, Indra Cotton Mills Limited, one of the leading Spinning Mills in the Textile Industry in Tamil Nadu is located at Jagampet Gardens, Chrompet which is located about 25 km. from the south of Madras. It is a medium scale industry. The company was incorporated on 20\textsuperscript{th} January 1056 as a Private Limited Company by Shri A.L.C.T. Chidambaram Chettiyar, an industrialist of Kottaiyur near Karaikudi of Pudukkottai district. The company started its commercial production viz. manufacture of yarn, in June 1957, with an installed capacity of 6728 spindles by making an investment of Rs.13/- lakh under fixed assets. The installed capacity rose to 16,380 spindles within a short span of four years.

The company had established another unit in a separate building block naming it as ‘B’ unit, commercial production of which was started in February, 1986 exclusively for production of staple fibre yarn and polyester fibre yarn. Now,
the total installed capacity of both the units of the company is 40,320 ring spindles. The total capital investment in Fixed Assets is around Rs.481 lakh. The company has enough captive power to generate its own power to cope up with the power cut even to the extent of 100 percent. The company manufactures cotton yarn, cotton and viscose blended yarn, polyester and cotton blended yarn and polyester and viscose blended yarn. The turnover of the company is about Rs.16 crore per year and the entire production is sold through their own depots located at Bombay, Ichalkaranji in Maharashtra and Umbergaon in Gujarat. The company buys cotton from regular suppliers at Maharashtra, Karnataka, Andhra Pradesh and other cotton growing areas. The synthetic fibre is bought from suppliers in Madhya Pradesh and Karnataka, depending on the quality of cotton and synthetic fibre and their suitability to various counts spun considering the market conditions from time to time. The present labour strength is about 450. Most of the workmen are provided with residential quarters.16

Sri Bagavathi Tea Estates Limited

Sri Bagavathi Tea Estates Limited owns also a fruit juice based beverage unit at Mevaloorkuppam village, in Sriperumbudur taluk on Chennai-Bangalore highway which is 8 km. from Poonamallee and 32 km. from Chennai. The Beverages Division was first promoted by M/s.Sakthi Beverages Limited, under private sector in the year 1987 and the business as a whole was purchased by M/s.Bagavathi Tea Estates Limited, on 25 March 1991. The installed capacity of the plant is 51 million packs of 200 ml. each. The capital investment at the time of inception of M/s.Sakthi Beverages Limited was Rs.342 lakhs. The industry is now
under the control of M/s. Sri Bagavathi Tea Estates Limited and the capital investment during 1991 is Rs.311 lakhs. It is a medium scale industry. Raw materials are brought indigenously. The finished products viz. fruit juice based beverages are sold under the brand name FROOTI, APPY and PINGO. During the year 1990, 91,23.6 million packs of 200 million were produced\(^7\).

**The Chrome Leather Company Limited, Chrompet**

The Chrome Leather Company Limited, a private concern, has set up a factory at Chrompet. 18 km. from Chennai for manufacturing tanned leather, I.L.G. and Ginning, washers, chapels and shoes in the year 1908 at a cost of Rs.7,00,000/-. A quantity of 3 lakh sq.ft. tanned leathers, 10,000 I.L.G. and ginning washers and 250 pairs of chappals and shoes are manufactured per month. The factory provides employment to 209 persons and roughly a sum of Rs.40 lakh is paid as wages and salaries every year. The Kancheepuram District Tannery Workers Union is looking after the employees’ welfare.

**Empee Distilleries Limited**

M/s. Empee Distilleries Ltd., a private concern, has established a medium scale distillery unit at Mevaloorkuppam in Sriperumbudur taluk in the year 1984. The unit is located on the Poonamallee – Bangalore High road which is 12 km from Poonamallee on the west, 7 km. from Sriperumbudur on the east and 32 km from Chennai. The distillery is engaged in the manufacture of Indian Made Foreign Liquor (IMFL) such as Brandy, Whisky, Rum and Gin. The installed capacity of the plant is 2500 cases of IMFL and the plant is functioning with its full capacity. The
资本投资于1984年为450万卢比，1990-91年增加到1500万卢比。用于IMFL制造的原材料是精制酒精/中性酒精、麦芽酒精、葡萄酒精和苏格兰威士忌，它们分别从不同的酿酒厂采购。酿酒厂在1984年提供了40个就业机会，1990-91年增加到225个。1984年支付给员工的工资为22,500卢比，1985年为1,98,000卢比，1986年为2,64,000卢比，1987年为10,77,654.60卢比，1988年为8,25,964.60卢比，1989年为6,03,733.50卢比，1990年为2,55,110.50卢比。

总的来说，Kancheepuram在规划和实施促进工业发展的计划和项目方面扮演着至关重要的角色，特别是在该地区的中小企业。它为现有和新建立的工业单位提供协助和支援，并且营销小型工业产品。DIC（区工业中心）促进基础设施设施，如电力、交通和通信，这些设施在该地区都可获得。主要工业已建立在Vandalur、Maraimalai Nagar、Sriperumbudur和Porur。它们在小型工业部门生产各种产品，如自行车、拖拉机、汽车、变压器和开关齿轮、运输设备、汽车配件、皮革产品、金属和橡胶产品。自由贸易区已近Tambram建立。

除了由政府机构设立的工业区，如SIDCO、SIPCOT、TIC、TALCO、MMDA等，私人工业区也在这一地区涌现。工业增长中心在该地区已经确定。
Sriperumbudur and Madurantakam. Kancheepuram, Madurantakam, Cheyyur, Uthiramerur of the district have been declared by Government of Tamil Nadu as industrially backward areas, with a view to attract new industries in the district. Entrepreneurs who would like to start new industries can avail themselves of 15 percent state subsidy.
References:


10. Ibid. p.350


15. Ibid.


17. Ibid. pp.527 & 528.

18. Ibid. p.531.