CHAPTER-III
PROFILE OF THE STUDY AREA

3.1 INTRODUCTION

This chapter consists of the profile of the study area. It explains Location and Geographical Details, Population, Education ,Agricultural ,important places, the overall infrastructure, soil, tenancy, and administrative units of Thanjavur district.

3.2 THANJAVUR DISTRICT

The Rice Bowl of Tamilnadu , The land of big Temple and other exquisitr temples , the Cradle of Art and Culture, Thanjavur district has many such distinctions. It is known for its cultural excellence and agricultural Prominence.

3.2.1 Location and Geographical details

The District lies between 90 50’ 110 25’ northern and 790 50’ of eastern longitude . It has a geographical area of 3396.57 sq.Kms. It is bound on the north by Tiruchirappalli and perambalur District, on the west by Trichirappalli District, on the south by Pudukkottai District and on the east by Nagappattinam and Thanjavur District and Bay of Bengal. The District is essentially a deltaic terrain and greater part of it consists of an undulating plain bisected by the valley of Cauvery. The climate of the district is basically tropical and the district falls under the category of medium and high rainfall region with annual average rainfall of 1021 mm. Major part of precipitation is reeived through North East Monsoon (October early December). The soils in the district range from the alluvial in Cauvery Delta to sandy in coastal areas.
3.2.2 Population density of Thanjavur District

The total population of the district as per 2001 Census is 22.05 lac and the decennial growth rate is 11.48%. The population density is 605 / km², which is higher than the state average of 371/km². The incidence of Scheduled Caste / Tribe Population is 3.57 Lacs. Out of the total working population, agricultural laborers constitute the largest group ie 3.23 lacs, followed by cultivator’s ie 1.90 lacs indicating excessive occupational dependence on agriculture.

3.2.3 Education

Thanjavur has the prestigious Tamil University. The Govt Medical College and other hospital have brought advanced and comprehensive medical care to the people. It has also many engineering colleges, polytechnics, Industrial Training Institutes, Art and Sciences colleges and has specialized training and research institutions like Co-operative Training Institute, Teacher Training College, College of Art and Crafts, Music College, Rural Extension training Cener, Rice Research Center, Coconut Research Center, etc. It will not be completed without mention of the famous Tanjore Maharaja Sarfoji’s Saraswathy Mahal Library which is one of the few medieval libraries that exist in the world. It is an unbounded repository of culture and inexhaustible treasure house of knowledge.

3.2.4 Agriculture

Thanjavur District is the rice bowl of Tamil Nadu. As a result, most of the people in Thanjavur District are farmers. Many of these Farmers are tenant farmers, who work the lands of a landlord and pay rent for their property. The district is essentially a deltaic terrain and greater part of it consists of an undulating plain bisected by the valley of Cauvery. The climate of the district is basically tropical and the district falls under the
category of medium and high rainfall region with annual average rain fall 
1021 mm. Major part of precipitation is received through North East 
Monsoon (October to early December). The soils in the district range 
from the alluvial in Cauvery Delta to sandy soils are coastal areas.

3.2.5 Importance Places

Thanjavur is home to the famous Brahadeeshwara Temple which 
was built by Raja Raja chola during the 11th century. The 
Brahadeeshwara Temple also known as the big temple which is one of 
UNESCO world Heritage sites. The temple is enclosed in two courts 
surmounted by a lofty tower and including the exquisitely decorated 
shrine of subrahmanya. Among the other historic buildings is the 
vijiyanagar fort, which contains a palace that was expanded by the 
Maratha king Serfoji II with an armory, a Bell Towers and the Saraswathi 
Mahal Library, which contains over 30,000 Indian and European 
manuscripts written on palm leaf and paper.

3.2.6 Economy

Thanjavur economy is predominantly agrarian with about 75% of 
work depending on agriculture. Paddy is the principal crop which 
accounts for major portion of cropped area and the other crops are 
Sugarcane, Banana, Pulses and Oil-seeds.

The major sources of irrigation are the canals (96%). Cauvery, 
Vennar and G.A Canal contribute to the irrigation of the district. The 
Grant Anacicut built by king Kariakal chola (50 AD-95 AD) testifies to the 
skill of south Indians in harnessing rivers for irrigation. The operational is 
1.03 ha. The preponderance of smaller holding, large number of tenant 
cultivators and temple lands resulted in low productivity of paddy in the 
district.
According to District Industries Center, the district has got 8723 SSI units, 9 medium and large scale units, 5187 cottage industries and 7805 handicrafts units. Thanjavur is famous for its traditional handicrafts such as Thanjavur art plates, Icon works, pith works, musical instruments, Thanjavur paintings besides weaving (Lead Bank (I.O.B.) Report, 2002 - 2003).

3.2.7 Art and Culture

The Big Temple constructed by king Raja Raja chola is a standing monument of ancient architecture. The striking features are huge Nandi carved out of a single piece of rock and the hollow construction of over the sanctum. The manimandapam and Tholkappier Tower constructed on the eve of Eighth world Tamil Conference are also worth to be seen. The District has many holy temples and especially, Kumbakonam is dotted with temples in and around and the famous Mahamham Tank.

The Trinities of Music namely saint Thiyagarajar, Muthuswamy Dikshithier and Shyama Sastri contributed richly to the glory of carnatic music. Pandanallur and Vazhuvur schools of Bharata Natya are known for their distinctive styles. Bhagavatha Melas celebrated on the eve of Narasimho jayanthi at Melattur and Saliamanagalam and associated with traditional dance and drama events. The South Art & Culture Center at Thanjavur promotes various culture activities and folk arts in the district.

3.2.8 Transportation Infrastructure

Thanjavur is one of the main Railways Junctions of southern Railway. It is connected with Chennai (popularly called as mainline). It is also connected with Nagore in East and Tiruchirappalli in the west.
3.2.9 Thanjavur Municipality

Thanjavur Municipality is one of the oldest Municipalities in Tamilnadu which was formed in the year 1866 (9.5.1866) during the British regime. Since 9.5.1983 it is a special Grade Municipality in Tamilnadu. The Thanjavur District consists of 3 Municipalities, namely, 1. Thanjavur, 2. Kumbakonam and pattukkottai. This is the biggest municipality in thanjavur District and is placed in the district head quarter area. Hence all the Government offices are situated in the Thanjavur town (Source Thanjavur MunicipalOffice).

Thanjavur District is essentially a deltaic plain comprising of old and new delta. The old delta has a net work of canals and channels of the river Cauvery and Vennar. Upperportion of this new delta area is irrigated by Grant Anaicut canal. Tapping of ground water is done considerably in this area to advance the first cropping season Kuruvai to avoid damage due to North East monsoon and to accommodate the two crops namely kuruvai and Thaladi.

The soil of new deltaic area are amenable to wide variety of crops such as Coconut Mango, Guava, Cotton, Gingelly, Groundnut, Banana etc. Cultivation of oil palm and Soyabean is also carried out in this district wherever assured water supply and drainage facilities are available.

The major crops cultivation in Thanjavur district are Paddy, Pulses, Gingelly, Groundnut and Sugarcane. The minor crops like Maize soyabean, Redgram are also grown. Paddy is the principal crop grown in three seasons viz. Kuruvai, Samba and Thaladi. Pulses like Black gram, Green gram and cash crops like Cotton and Gingelly are grown in rice fallows.
In new delta area, the Groundnut is the principal crop. Sugarcane is cultivated both in new delta and old delta. Bananais primarily grown in padugai lands.

3.2.10 Irrigation

The presence of the river Cauvery and numerous irrigation projects that have been carried out even from days of chola kings can be considered as the best irrigation system in Tamil Nadu. Especially in arenaceous soil tracts in Pattukkottai, provision of irrigation has proved very useful. The necessity for irrigation was realized very early and irrigation systems of the district are dated back to days of early Cholas.

Thanjavur today has one of the best irrigation systems in the State and ranks foremost in the area irrigated. Over 70% of the gross cropped area is under irrigation systems from one source or the other. It would be obvious if one see the net area irrigated in the district, over 90% of the net sown enjoys the benefit of irrigation. The total area irrigated in Thanjavur district stood at 2,17,581 hectare during 1999-2000. The chief sources of irrigation in the district are rivers, a few rainfed tanks, tubes, wells and wells. These tanks and wells situated mostly in the upland regions Cauvery and Coleroon are the most important rivers in the district and as these rivers, a few rained have their origin in the western ghats, they are fed by the southwest monsoon. Strictly speaking agriculture in the district is dependent on the river Cauvery as most of the irrigated area in the district derive water from Cauvery and its numerous branches. A bird’s eye view of the course of the Cauvery in Thanjavur will show how and where it has been tapped efficiently for irrigation. About 80% of the total net area irrigated is served by canals and these canals are fed by the river Cauvery. Thus Cauvery is the primary source of
irrigation in the district. The Cauvery delta system in Thanjavur which comprises mainly three important project Viz., the Grand Anaicut, the Cauvery, Vennar, and Cauvery Mettur project.

The oldest and most significant among these three is Grand Anaicut and is reported to have been constructed during the Sangam Age of Chola Period. This has been built at the junction of Cauvery and Coleroon about sixteen kilometers from Triuchirappalli at the lower end of Srirangam island and is designed to regulate the water supply which comes down the Cauvery from the Upper Anaicut. When the supply exceeds the requirements of the delta channels, the gates of the Grand Anaicut are raised and the surplus water is passed down into the Coleroon where it proceeds down to the Lower Anaicut and it is again regulated and utilized for irrigation by means of other canals. The Grand Anaicut was first built by granite stones and mud with an outer layer of granite blocks in lime mortar. Its length is 1080 and breadth is 40’ to 60’ with a depth of 15’ to 18’. Later on, it has undergone numerous improvements. In 1806, it was raised further and in 1830 it provided with sand scouring sluices. Some fifty years later, the stones were removed and replaced by lifting shutters in 1899. The main purpose of this Anaicut was to check and control the waste water running into Coleroon. Sir Arthur Cotton, an able engineer, built a masonry wall at the head of the Coleroon in 1836, in order to prevent silting up of Cauvery in the deltaic region by Coleroon so as to keep enough water in the main river Cauvery. After the Construction of the Upper Anaicut, floods often threatened the Anaicut and then occurred serious erosions on the banks of the Cauvery dam. In order to avoid the danger completely, Upper Anaicut was rebuilt in 1899 so as to provide passage flood water down the Coleroon in cases of emergency. Cauvery Vennar regulators which are immediately below the Grand Anaicut divide the stream between rivers and control flow of
water. Just below these small regulators are built in order to effect proper
distribution of water among various branches of the river and other
numerous irrigation channels. The Coleroon Anaicut was also the product
of the mastermind of engineer Sir Arthur Cotton and was built in the
order to irrigation the north eastern columns of the district, especially
the Taluks of Mayiladuthurai and Sirkazhi which were not adequately
covered by the Cavury system. This dam was extended remodeled and
rebuilt on the same lines as the Upper Anaicut. A few major repair works
for strengthening of the dam were undertaken early this century.

Channels of this Anaicut irrigated an area of 182953 Hectares in
Thanjavur District. The Total area irrigated by the system (for the first
crop alone) to 1,50,943 hectares from 29, 866 acres under the second
crop.

The idea to built a reservoir on the Cauver in order to irrigate the
deltaic regions of the district was that of Sir Arthur Cotton whom the
entire district will remember and owes ever. Numerous proposals were
put forward and investigation carried on before and finally in 1910,
Colonel W.M Ellis worked out practicable schemes, but there was
disagreement between Tamilnadu and the Karnataka Governments of the
question of sharing Cauvery water. At the end, it was due to the efforts
of Dr. C.P. Ramasamy Iyer, the then member of the executive council,
that an agreement was arrived at. According to this agreement, the
scheme was to be executed subjected to certain conditions and most
important of which were that both the states should built their own
reservoirs and that the reservoirs at Mettur should be limited to a capacity
of not exceeding 93000 million cubic feet that it should irrigate over
3,01,000 acres. Based on the conditions, Mettur reservoir or the Stanely
Reservoir was Constructed.
Mettur Dam is the biggest dam in the State, with a length measuring over 5300 and height 214 above the deepest foundations. The project has been designed to ensure steady supply of water irrigation to over a million acres already supported by the Cauvery delta system and to irrigate an additional area of about 3,00,000 acres in orathanadu, Pattukkottai, peravurani and Thanjavur Taluks. The utility of the scheme is manifold. By the storage of flood water in the reservoirs, the dam has made it possible to provide sufficient supply of water for agricultural purposes during the inter monsoon periods and also to safeguard cultivation against the unforeseen vagaries of nature. Even in times of drought, the project ensures even supply and distribution of available water. Apart from these, it also acts a barrier against onrush of Cauvery in all its fury during the north east monsoon period and causing serious damage to crops and lands.

During the last decade, the agriculturists of the district suffered a heavy damage to crops for want of timely and sufficient supply of water from Cauvery. Due pressure from the Government of Tamil Nadu, Union Government has a tribunal on the Cauvery water between Karnataka and Tamil Nadu.

Total food and non-food crop 2,17,581. It is noted that 59.8% of the area falls under the net area sown. It is also obvious that land under forest is much below the state average but this ecological imbalance has to some extent set aside by the land under miscellaneous tree crops and groves of 1.8% which is equal to the state percentage of 1.8.
3.2.11 Tenancy

Most of the lands were under the control of big landlords in the preindependance days. After Independence introduction of Land ceiling Act and other Acts protecting the Interest of tenants, The size of holding of individuals have been minimized. More than 80% of land were with small farmers and the average of the holding is less than 5 hectares.

3.2.12 Soil

The geological formation of Thanjavur district is made up of cretaceous, Tertiary and Alluvial deposits and the major area is occupied by the Alluvia and Tertiary deposits. The cretaceous formations occur as a small patch in West and South – West of Vallam. These formations have a very thick lateritic cap consisting of impure lime stones and sand stones of silt, clay calcarious and agillaceous variety, in the coast, these formations are over lain by Cuddalore sand stone of tertiary age.

The Cuddalore sand stone of Tertiary age are well developed as best seen, West of Grant Anaicut and near Orathanadu. These sand stones are covered by a thin layer of wind brown sandy clays, Unconsolidated sand, clay bound sands and mottled clays with the lignite seams. This tertiary formation is invariably capped by laterite.

In the east, the alluvial deposits of river Cauvery and its tributaries lie over the Tertiary sand stone. They consist of sands, gravelly sands, clays and sandy clays. The thickness of these formation ranges from 30Mt. to 400 Mt.
3.2.13 Rivers

The river Cauvery and its tributaries are the most remarkable feature of Thanjavur District. Cauvery is considered to be the best of the river that drain the Southern Pennisula of India. The river flows from Karnataka state and passes through Dharmapuri Salem Erode, Tiruchirappalli, Thanjavur, Thiruvarur and Nagappatinam district covering a distance of about 770 Kms draining an area about 72.800 aq.Km in all Springing from a spot lying on Brahmagiri Mountains on western – ghats at a height of 1, 320 meters above sea level, Cauvery meandus its way across Karnataka and Tamilnadu and showering not only economic prosperity of millions of people but also carving a riche itself in their lives in historical, culture religious realms.

Emerging as a small rivulet from the Co org mountains the river Cauvery expands rapidly increasing in volume, as hundreds of streams and rivulet merge with it which are mostly fed on the heavy rainfall of the south – West monsoon. After Sivasamudram Falls in Mysore, The Cauvery again forms beautiful water falls at Hoganekal in Dharamapuri District.

The three tributaries, palar, Chennar and Toper enter into the Cauvery on her course, above Mettur, where the famous dam has been constructed. The Mettur dam Joins the Sita and Pala Mountains beyond that Valley through which the Cauvery flow, up to the Grand Amicus. The dam in Mettur, impounds water not only for the improvement of irrigation but also to ensure the regular and sufficient of water to the important Hydro-Electric where river Bhavani Noyyal and Amravati join it before it reaches Thiruchirappalli district. Here the river becomes wide, with a sandy bed and flows in an easterly direction till spilts into two at
upper Anaicut about 14 kilometers west Tiruchirappalli. The northern branch of river is called the Celeron while the southern branch retains the same name Cauvery and then goes directly eastwards into Thanjavur District. These two rivers join again and from the Srirangam Island near Tiruchirappalli.

The Chola king, “Karikalan” has been immortalized as he has constructed the bank for the Cauvery all the way from puhar (Kaveripoompattinam) to Srirangam. It was built as far back as 1,600 years ago or even more. On both sides of the river are found walls spreading to a distance of 1,080 feet. The dam kallanai on the border between Tiruchirappalli and Thanjavur constructed by him is a superb work of engineering, which was constructed with earth and stone and has stood the vagaries of nature for hundreds of years. In 19th century, it was renovated in a bigger scale. The name of the historical dam has since been changed to “Grand Anaicut” and stands as the head of great irrigation system in the Thanjavur district. From this point, the coleroon runs north–east and discharge herself into the sea at Devakottai, a little south of Parangipettai. From river Coleroon, Manniar and Uppanai Branch of at lower Anaicut and irrigates a portion of Mayiladuthurai Taluk and Sirkazhi Taluk. After Grand Anaicut, The Cauvery divides into numerous branches and cover the whole of the delta with a vast network of irrigation channels and gets lost in the wide expanse of paddy fields. The mighty Cauvery river here is reduced to an insignificant channel and falls into the Bay of Bengal at the historical place of Poompuhar (Kaveripoompatinam) about 13 kms north of Tharangampadi. The river Cauvery Flows the entire district in different names through its tributaries and branches viz., Grand Anaicut canal Vennar, Pannaiyar, Koraiyar, Vettar, Kodamuritiyar, Thirumalarajanar, Arasalar,
Veerasozhanar, Mudikondan, Noolar, Vanjiar, Vikaraman, Nattar, Kirtimanar, Nandalar, Majalar, Majalar, Mahimalayar, Palavar, Cholasudamani, Puthar, Valappar, Vadavar, Pamaniar, Mulliyar, Ayyanar, Adappar, Harichandranathi, Vellaiyar, Pandavaiyar, Odambogiyar, Kattar, Kaduvaiyar and all these branch off into a number of small streams.

Among the various names by which the holy Cauvery is known during its course, the most popular in Tamil Nadu is “Mother Cauvery” due to the high sanctity attached to it. It is worshipped by the people irrespective of caste, creed or religion during Maha Magam festival celebrated at Kumbakonam once in 12 years. The Pilgrims after a bath in Mahamagam tank proceed for a holy dip in Cauvery which is believed to purge of all sins. In the Tamil month of Adi (July – August) on the 18th day, (adi – Perukku), The people throng the bank of the river for the holy bath and pray the mother Cauvery for their prosperity. In the Tamil month of Aypasi (October - November) thousands of devotees participate in a festival called “kudamuzhukku” celebrated on the banks of the river Cauvery and its tributaries have also earned fame as either sacred religious centers or beautiful scenery spots, providing the much needed respite and mental solace to urbanities.

3.2.14 Rainfall and climate

The climate of Thanjavur can be termed as a fairly healthy one like other coastal areas. November, December, January and February are the pleasant months in a year with climate full of warm days and cool nights. From March onwards, the climate rather becomes sultry and the mercury shoots and reaches its peak by the end of May and June depending upon the set of summer rain. The north–East monsoon in October brings
complete relief. The south–West monsoon sets in June and continues till September. The rainfall during this period in much lowers than that of North–East monsoon which relief. The South–West monsoon sets in October and continues more or less till February (Up to winter). However Thanjavur District is benefited more by North–East monsoon because of its heavy rainfall and the Western Ghats invariably feeds the Cauvery and helps greatly for the vast cultivation of the deltaic area.

3.2.15 Administrative Units

In Tamil Nadu there are 32 district, 215 sub-districts, 1097 towns and 15979 villages as per Census – 2011. The corresponding figures for Census 2001 were 30 district, 201 sub-districts, 832 Towns and 16,317 Villages. There is an increase of 2 districts, 14 sub-districts, and 265 Towns (all Census Towns) In respect of village the number has come down from 16317 to 15979.

There were 16,317 revenue villages in 2001 Census and as per 2011 census the number is 15979 of 16317 revenue villages, 295 revenue village falls. Under the newly categorized 271 Census Towns, 96 villages were accommodated in 67 revenue village (which includes 6 declassified CTs). 14 villages are identified as out growths for 2011 Census (16,317-295-96-14+67=15,979).

3.2.16 Population of Tamilnadu

Tamil Nadu returned a total population of 7, 21, 38,958(provisional) in 2011 census. Of this, the rural population stands at 37.19 million and the urban population 34.95 million. In absolute numbers, the rural population has increased by 2.27 million and the urban population by 7.47 million in the last decade.
### 3.2.17 Population of Thanjavur as per census, 2011

In 2011, Thanjavur had population of 2,402,781 of which male and female were 1,183,112 and 1,219,669 respectively. There was change of 8.42 percent in the population compared to population as per 2001. In the previous census of 7.91 percent to its population compared to 1991. The initial provisional data suggest a density of 691 in 2011 compared to 638 of 2001. Total area under Thanjavur district is of about 3,476 sq.km.

Average literacy rate of Thanjavur in 2011 were 82.72 compared to 75.45 of 2001. Of things are looked out at gender wise, male and female literacy were 89.06 and 76.61 respectively. For 2001 census, same figures stood at 84.47 and 66.70 in Thanjavur District. Total literate in Thanjavur District were 1,802,291 of which male and female were 951,803 and 850,488 respectively. In 2001, Thanjavur District had 1,476,256 in its total region.

With regards to sex Ratio in Thanjavur, it stood at 1031 per 1000 male compared to 2001 census figure of 20011. The average national sex ratio in India is 940 as per latest reports of census 2011 Directorate. In census enumeration, data regarding child under 0-6 age were also collected for all districts including Thanjavur.

Sarabondrarajanpattinam, is an example of Architecture of Marattas. It was built in 1814 to commemorate the victory of the British over Nepolean Bonapart in war of Waterloo. Pattukkottai is the birthplace of eminent and profound personalities like former president Mr. R. Venkataraman, famous poet Pattukkottai Kalayansundaram.
Other places of tourist interest in and around the town include the shrine of sheik Alauddin Sahib, Goddess Naiamman Temple, and shrine of Venkudu Subbiah Swamigal, Arulmigu Thurgai Amman temple and Gandhi Park. Nearest airport is at Tiruchirappalli. Pattukkottai Railway station is on the Karaikkudi. Tiruturaipundi line pattukkotai municipality was upgraded as selection grade in 1984.

3.3 SOCIO ECONOMIC CHARACTERISTICS OF FARMERS IN TAMILNADU

Tamil Nadu, the southernmost state of the Indian peninsula is, spread over 1.30,058, sq.km; it lies between 80 5” to 130 35” N and 760 15” to 800 20” E and accounts for about 4 percent of the total area of the country. The topography of Tamil Nadu broadly consists of the coastal plains in the east; uplands and hills as one proceeds westwards; the plains account for more than half the area of state.

Tamil Nadu has number of rivers that are relatively small and perennial. Barring the hills, the climate of Tamil Nadu can be classified as semi-arid tropic monsoon. The maximum temperature in the plains about 450°C in the summer and the minimum goes to about 100°C during the winter; the normal rainfall in the state is about 950mm with an average number of 50 rainy days.

Analyzing the land use pattern of the state, it is found that 43% of Tamil Nadu geographical area is under agriculture with a per capita figure of 0.0982 ha. Of agriculture land, while agriculture and allied sectors account for nearly 62% of the total employment of the state, their contribution to economic is only 22% in order to increase the productivity
we have relied too much on improved crop varieties, fertilizers and pesticides. The residues of these have affected soil structure and polluted the water through leaching. India is the leader in fruit production in the world.

The horticulture and plantation crops occupy total of 7,53,985 ha. of area. However, there is need to improve the productivity of these crops on sustainable basics without affecting in the world.

For the well being and prosperity of a country, at least about one third of her geographical area should be under good forest cover. In Tamil nadu we have only 17.5% of the area under forest cover a sizeable area is under degraded of which condition.

3.4 INDIAN COCONUT MARKET

The coconut palm (cocos nucifera linn.) is supposed to be one of the five legendary devavriskshas and is eulogized as kalpavriksha-the all giving tree- in Indian classics. All parts of the palm are used in some way or another in the daily life of the people of the west coast; the traditional coconut growing area. Its fruit is called lakshmi phai and is used in social and religious functions in India irrespective of whether palm is locally grown or not.

Coconut is growing in more than 86 countries worldwide with a total production of 54 billion nuts per annum. India occupies the premier position in the world with an annual production of 13 billion nuts, overtaking Indonesia and the Philippines, the other two prominent coconut-growing countries.
The coconut palm is a versatile tree crop; no other tree crop grown can match coconut palm in its versatility. It provides nutritious food and a refreshing drink, oil for edible and non-edible uses, fiber of commercial value, shell for fuel and industrial uses, thatch, an alcoholic beverage, timber, and a variety of miscellaneous products for use as domestic fuel. The palm is amenable to both plantation and homestead management and it can be either a major crop or a minor one in a homestead, of mixed crops. While responding favorably to scientific management, the palm also tolerates negligent farming to a certain extent. Thus it can adapt to the divergent farming situation and management practices that are prevalent in the different agro-climatic regions.

The coconut palm exerts a profound influence on the rural economy of the many states where it is grown extensively and it provides sustenance to more than 10 million people. The export earning derived by India from coconut are around Rs.3000 million, mainly through the export trade in coir and coir goods. The processing and related activities centered on the crop generate employment opportunities for over two million people in India. The contribution of coconut oil to the national edible pool is 6%. In addition, the crop contributes Rs.7000 Crores annually to the Gross Domestic Product (GDP). It is no wonder coconut culture is spreading even to non-traditional bets that were, until recently, considered unsuitable for the purpose.

In India, coconut is cultivated mainly in the coastal tracts of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Orissa, West Bengal, Pondicherry, and Maharashtra and in the islands of Lakshadweep, Andaman and Nicobar. Of late coconut cultivation has been introduced to suitable locations in non-traditional states including Assam, Gujarat, Madhya Pradesh, Rajasthan, Bihar, Tripura, Manipur, and Arunachala pradesh and in the hinterland regions of the coconut growing states.
Kerala is the main coconut growing state with an area of 10.20 lakh hectares and production of 5911 million nuts, followed by Tamil Nadu (3.20 lakh hectares and 3716 million nuts). These four southern states together account for 90% of the total production in the country.

In productivity too, India ranks number one among other coconut growing countries in the world. The average productivity of coconut in the country is 6898 nuts per ha. Among the four major coconut growing states, Tamil Nadu has the highest productivity (11,620 nuts /ha), Andhra Pradesh has a productivity of 8296 nuts /ha, followed by Kerala (5793 nuts /ha) and Karnataka (5204 nuts /ha).

There are mainly two varieties of coconut; tall and dwarf. In addition, hybrids of various combinations have also evolved. The tall cultivar is extensively grown throughout India, while the dwarf is grown mainly for parent material in hybrid seed production and for tender coconuts. The tall cultivar is generally grown along the west coast is called West Coast Tall, and the cultivar grown along the east coast is called East Coast Tall.

Benaulim is the tall variety grown in Goa and coastal Maharashtra, Laccadive Ordinary, Laccadive Micro, Tiptur Tall, Kappadam, Komadan and Andartian Ordinary are some of the tall varieties grown in the country and chowghat Dwarf Orange, Chowghat Dwarf Green, Malayan Yellow Dwarf and Malayan Orange Dwarf are some of the dwarf cultivars grown in India. Gangabondam is a dwarf type grown in certain tracts of Andhra Pradesh. Many hybrid combinations of tall and dwarf cultivars that have evolved are also grown in the country. Coconut possesses the unique characteristic of allowing any crop combination in
the inter – spaces. A well – spaced coconut garden provides adequate inter- spaces where it is possible to grow a variety of crops, both seasonal and perennial. When annuals or seasonal crops are grown in coconut holdings it is designated as inter – cropping; when perennials are grown it is called mix cropping . A combination of inter – crops and mixed crops raised together are referred to as a multi – stored cropping system.

In widely spaced gardens the shade from the coconut palms is not intense enough to prevent the growth of others crops. During the pre-bearing period, especially up to their year after planting, the entire area could be made use of because of the negligible shade effects. As the palms grow there is a progressive increase in the shade coverage produced by the crown for up to 20 years. Depending on the age of the palms and canopy coverage suitable crops, or a combination of crops, could be selected for growing in the gardens. The common inter-crops that could be grow during the pre-bearing or the early stages of the growth of the palms are pineapple, banana, groundnut, chilies, tapioca, sweat potato and other root crops. In additions, cocoa, pepper, cashew, fruit trees could be grown as mix crops.

Coconut crops are susceptible to various disease and pest attack. The major pests to coconut in India are rhinoceros beetle, red palm weevil, leaf-eating caterpillar and rats the major diseases are root wilt, Thanjavur with ganoderma, tatipaka, bud rot, leaf rot, stem bleeding and crown choking. Of these, root wilt, prevalent in kerala, is a century old disease. Effective control measures are yet to be developed for root wilt disease in kerala; Thanjavuur and tatipaka disease in Andhra Pradesh. However, the disease can be kept under control by adopting the recommend package of practices. Of the total production of coconut,
about 5% is consumed in the tender from for drinking purpose. The rest is utilized as mature nuts for household and religious purpose and desiccated coconut. Coconut oil production in the country is nearly 4.5 lakh tones. Of this 40% is consumed for edible purpose, 46% for toiletry uses and 14% for industrial uses.

The emphasis given by the coconut development board to evolving technologies for the development of new value added products has yielded results and this product diversification and by-product utilization has recently gained momentum. Various research programmes, sponsored by the board through the existing research institution in the country, have led to the development of new technologies for the manufacture of coconut cream, spray dried coconut milk powder, preserved and packed tender coconut water and coconut water based vinegar. Commercial production units have started in various parts of the country with the technologies developed so far.

This chapter clearly deals with Thanjavur district profiles socio economic characteristics of farmers in Tamilnadu and also explains the explains the Indian coconut market.