



TAMIL NADU RURAL TRANSFORMATION PROJECT

DISTRICT DIAGNOSTIC REPORT TIRUVALLUR DISTRICT





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FOREWORD

The task of preparing the District diagnostic report (DDR) has been given to Tiruvallur District by Tamilnadu Rural Transformation Society, Government of Tamil Nadu. The District Diagnostic Study reports were prepared by the District TNSRLM Project Director and his Team. Several meetings were held at Tiruvallur at Panchayat, Block and District level with concerned representatives during the last few months. TNSRLM & TNRTP team finalizing the report with all relevant sources and putting their efforts in shaping up the District Diagnostic report. All the key line departments at district and block level have actively participated in the sensitizing meeting organized by TNSRLM team and officials.

The District Diagnostic report documents have identified the major thrust areas in agriculture and allied sectors and MSME Sectors for achieving the envisioned growth in the district.

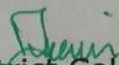
I extend my special thanks to Thiru, V. Jayakumar, M.Sc, MBA, Project director / Joint Director (Tamilnadu Rural Livelihood Mission) for the guidance provided by him and for his valuable support and encouragement in the process of carrying out the study.

I further extend my thanks to Joint director of Agriculture and Horticulture, District General Manager of Industries & Commerce (DIC), Assistant Director Fisheries and Animal Husbandry, Lead Bank Manager (LDM), DM-TAHDCO and other line / respective departments officials for providing constructive support and guidance in preparing the document.

I also express my deep sense of gratitude to all my friends, for their continuous help and support.

I hope the data furnished in this report would certainly be helpful to all stakeholders for effective planning and implementation to ensure effective reach of benefits of Tiruvallur district.

Suggestions and feedbacks from the users of the document for enriching the Contents of the document in future are most welcome.


District Collector
Tiruvallur District.

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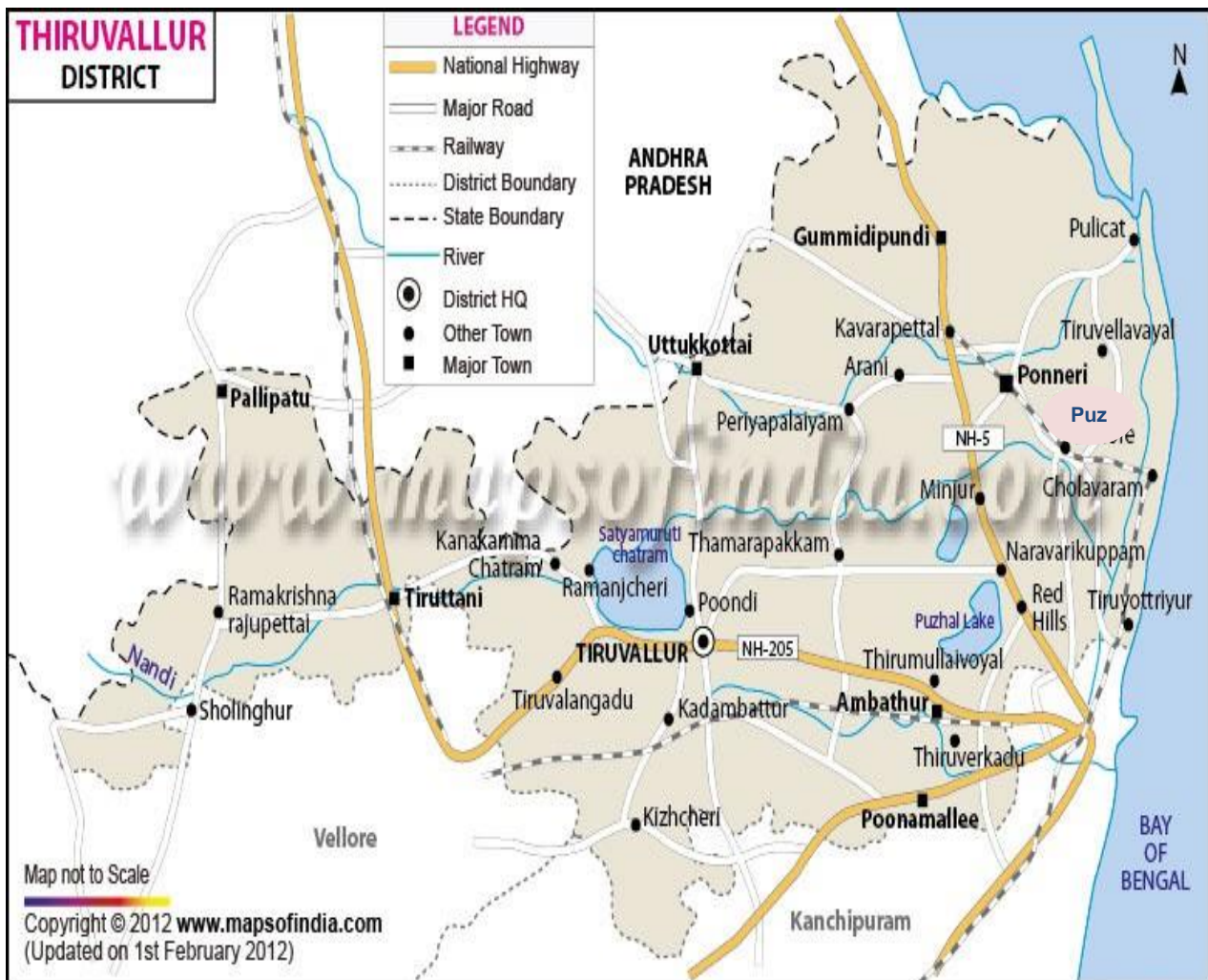
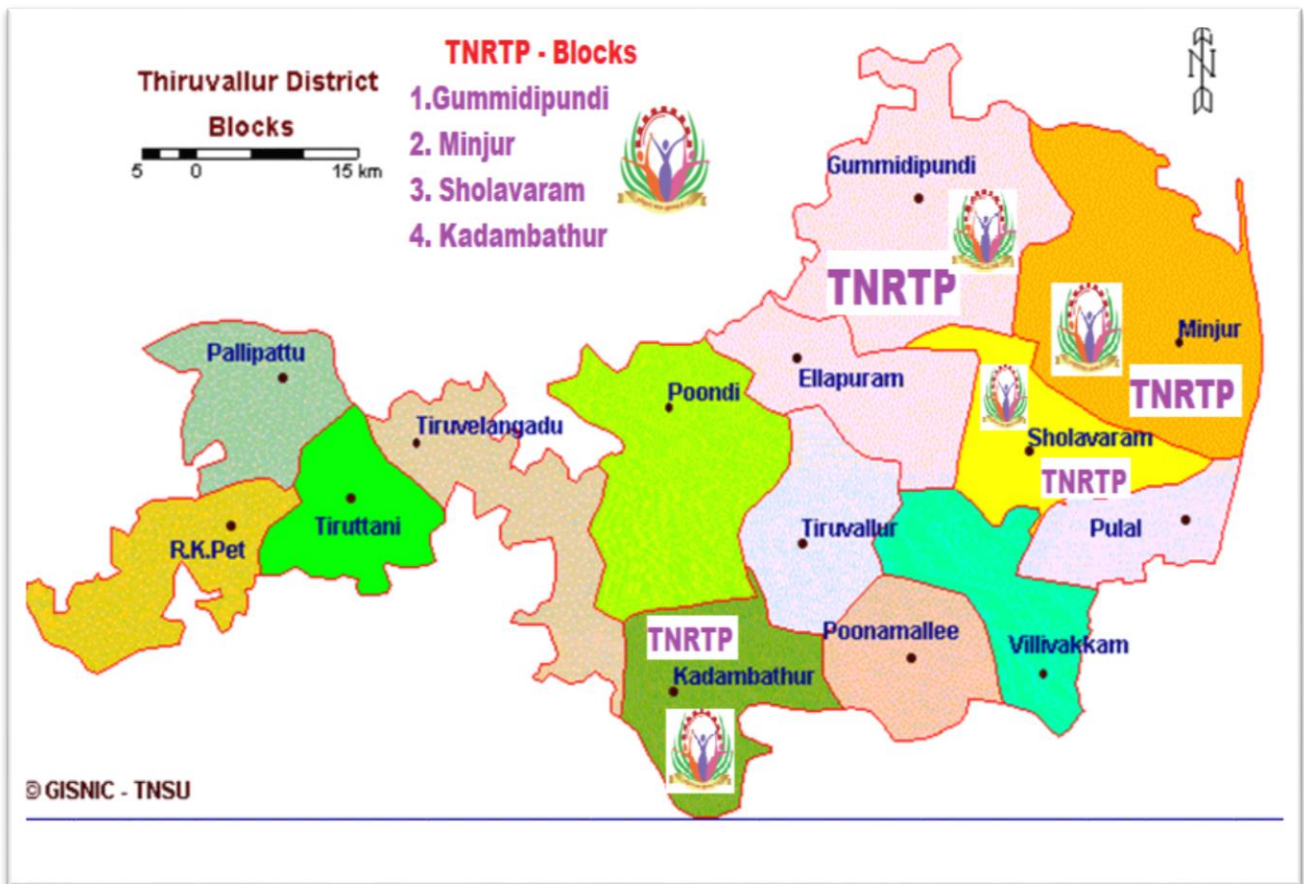
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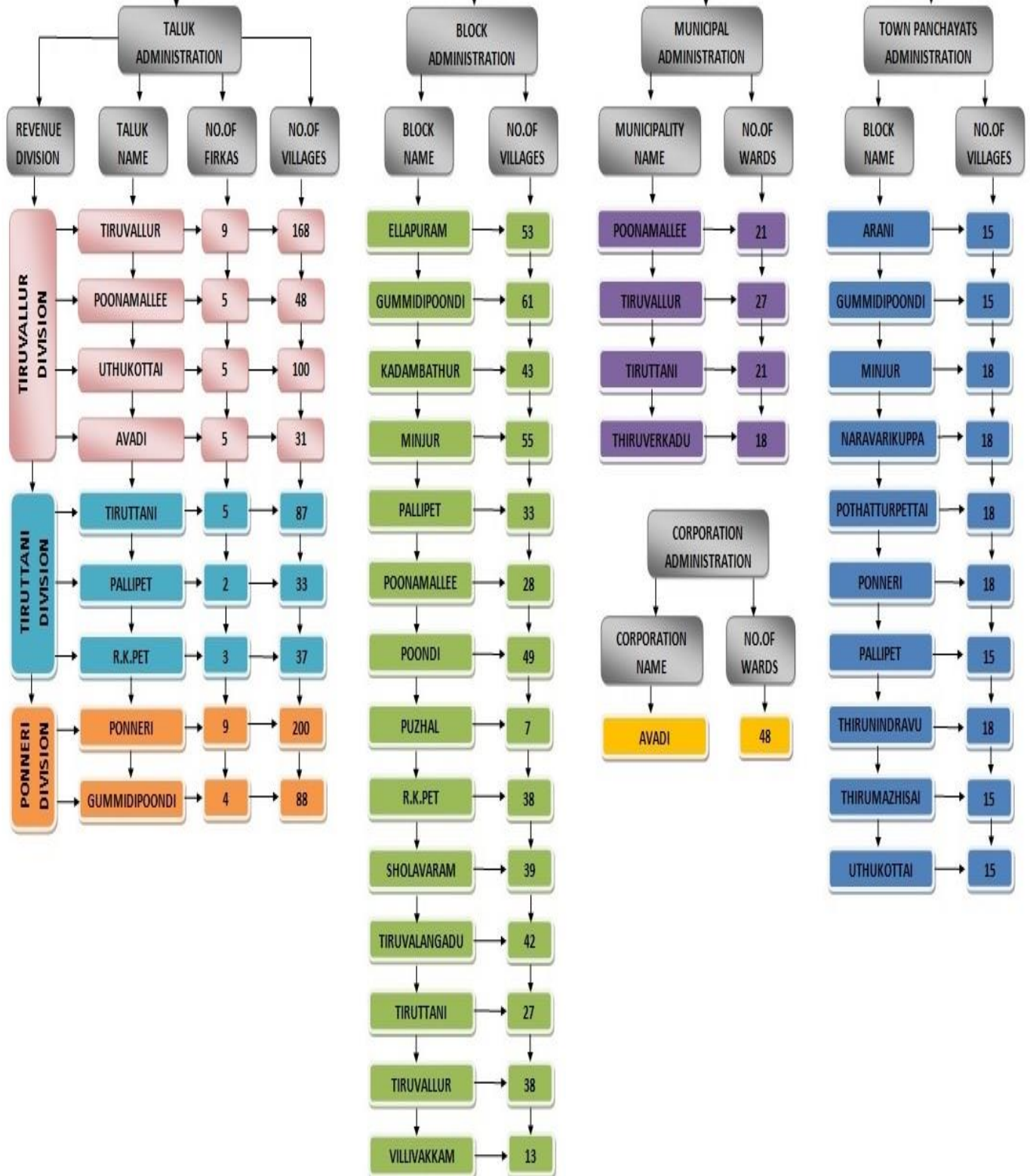
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GLOSSARY

BLF	Block Level Federation
CBO	Community Based Organization
CLG	Common Livelihood Group
DIC	District Industries Centre
DDS	District Diagnostic Study
FPO	Farmer Producer Organization
GDDP	Gross District Domestic Product
ICDP	Integrated Co operative Development Project
ISOPOM	Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize
JD	Joint Director
KVK	Krishi Vigyan Kendra
MDR	Major District Road
MSME	Micro Small Medium Enterprise
MT	Metric Ton
NABARD	National Bank for Agriculture and Rural Development
ODR	Other District Road
OSF	One Stop Facility
PCI	Per Capita Income
PD	Project Director
PG	Producer Group
PLF	Panchayat Level Federation
RIDF	Rural Infrastructure Development Fund
SHG	Self Help Group
SWOT	Strength Weakness Opportunities Threat
TNAU	Tamil Nadu Agricultural University
TNRTP	Tamil Nadu Rural Transformation Project
TNSLRM	Tamil Nadu State Rural Livelihood Mission
VPRC	Village Poverty Reduction Community



DISTRICT ADMINISTRATION



No. of Corporation		No. of Taluks			Blocks		Municipal Administration		Town Panchayats	
No. of Corporation	No. of wards	No. of Taluk	No. of Firkas	No. of Taluk Villages	No. of Blocks	No. of Block Villages	No. of Municipalities	No. of Municipal wards	No. of Town Panchayat	No. of Villages
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Tiruvallur District – An Introduction

Tiruvallur district is situated on the North Eastern part of Tamil Nadu and is surrounded by Kancheepuram district in the South, Vellore district in the West, Bay of Bengal in the East and Andhra Pradesh State in the North. The district spreads over an area of about 3422 Sq.km. This district consists of 1 Corporation, 9 taluks, 14 blocks, 4 Municipalities and 10 town Panchayats.

The Coastal region is mostly flat while certain areas in Tiruttani and Pallipattu taluks are undulated and even hilly. The types of soil predominantly found are red non calcareous and coastal alluvial.

The main occupation of people in this district is agriculture and allied activities. Nearly 47% of the total work force is engaged during the agricultural sector. Paddy is the principal crop extensively cultivated in three – seasons Viz. Sornavari (April - July), Navarai (Dec-Jan) and Samba (July-Aug) Pulicate Lake was identified as a site of international importance by the International Union for the Conservation of Nature (IUCN).

Thiruvallur district ranked the 3rd highest population size in Tamil Nadu. Thiruvallur district has the urban population share of 64.97%. In terms of population density, Thiruvallur district has recorded 1098 persons per sq.km. The district Sex Ratio is 987, lower when compared to the State Sex Ratio of the State. The district has recorded higher literacy rate (84%) as compared with State literacy rate of 80.1%. The decadal population growth during 2001 - 2011 was 35.3%.

Thiruvallur district is one of the fastest developing districts in Tamil Nadu in terms of Industrial Development as the district is adjacent to Chennai district. The district has 10 Industrial Estates which are developed by the Government of Tamilnadu.

1.1 Brief note on District Diagnostic Report

The Tamil Nadu Rural Transformation Project (TNRTP) is a transformative project that looks beyond poverty alleviation and aims at building sustainability and prosperity of rural communities by promoting rural enterprise.

The District Diagnostic Study is to study and prioritize the commodities which focused on farm, off-farm and non-farm sectors and based on their potentiality in Tiruvallur District. Further to the secondary data collected, templates using criteria like number of producer's involved, comparative advantage etc. was created to finalize the commodity under farm and non-farm sector. To assess the existing scenario in all aspects of Tiruvallur, the secondary information has been collected from the key line departments and its reports.

1.1.1 Project Beneficiaries

The project will primarily target the SHG households, who have basic level of assets, resources and skills created by the previous projects: the focus will be on women, scheduled tribes, scheduled castes, differently abled, youth farmers, fisherman, Fisherwomen and aspiring entrepreneurs. The beneficiaries will be the producer households, aggregated into producer groups/producer collectives and individual entrepreneurs across farm and non-farm sectors in the selected project blocks.

1.1.2 Project Areas

In Tiruvallur district out of 14 Blocks, TNRTP Project is implemented in 4 Blocks namely, Minjur, Sholavaram, Gummidipoondi and Kadambathur.

Project Implementation Area - Block Map

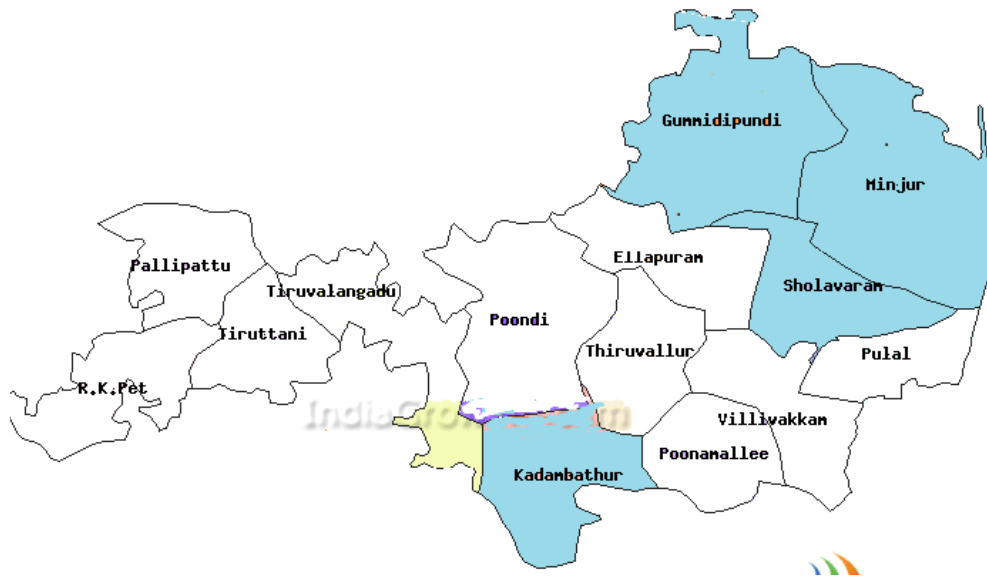


Table 1: List of Blocks and Panchayats in TNRTP

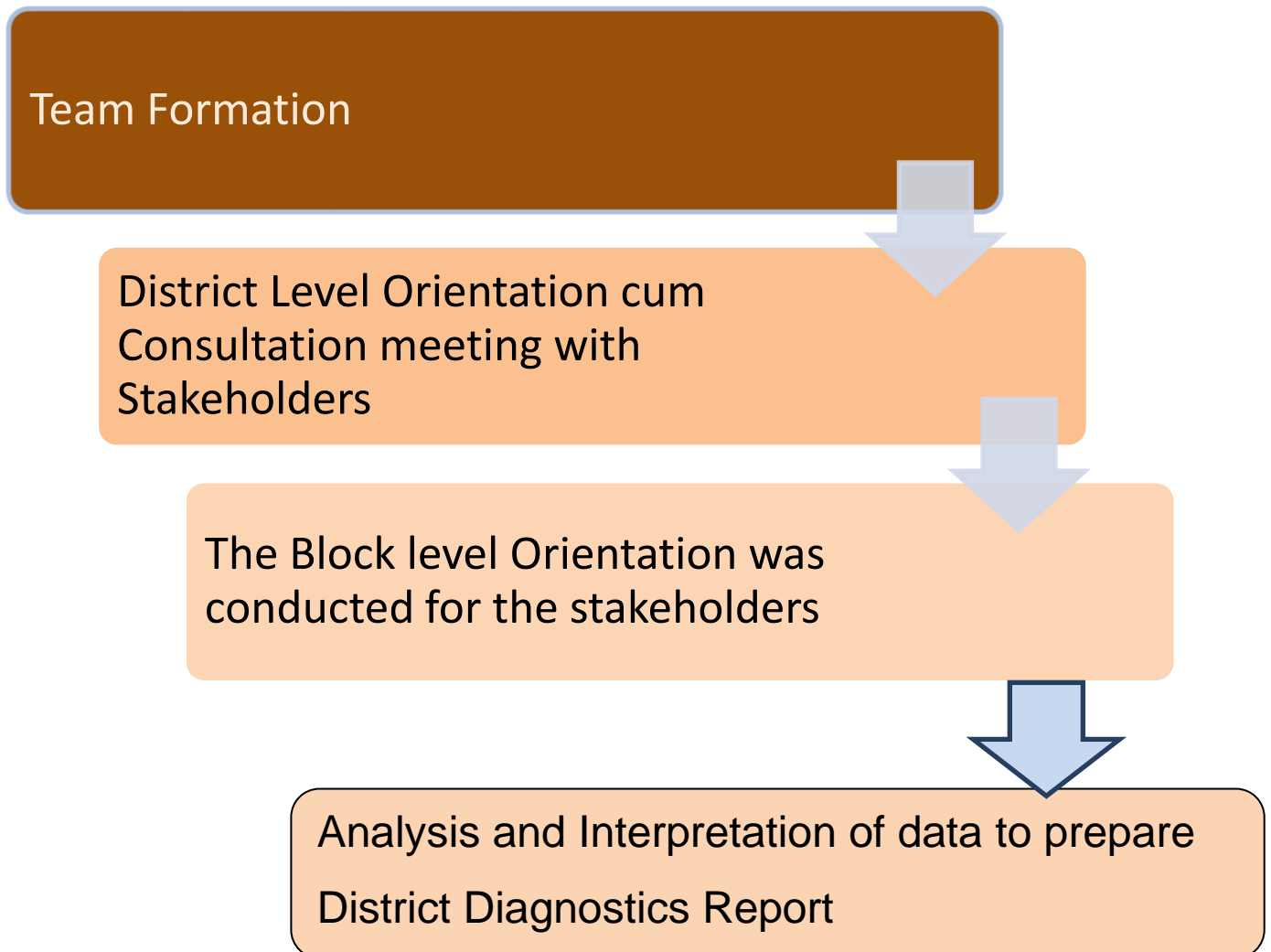
Phase	Blocks	No. of Panchayat
I	Minjur	55
II	Gummidipoondi	61
	Sholavaram	39
	Kadambathur	43
	Total	198

Table 2: TNRTP Block Population details

BLOCK	POPULATION	SC	ST	GROWTH RATE
Kadambathur	1,27,964	41231	2782	18.97 %
Gummidipoondi	1,90,541	49849	5100	19.39%
Minjur	2,33,320	81849	4998	16.28 %
Sholavaram	1,56,542	42245	2944	19.73 %

Source: District Human Development Report, 2017

1.2 Process flow of DDR



2 - Socio-Demographic profile

2.1 Topography (Source: District Human Development Report, 2017)

Tiruvallur district, a newly formed district bifurcated from the erstwhile Chengalpattu district (on 1st January 1997), is located in the North Eastern part of Tamil Nadu between 12°15' and 13°15' North and 79°15' and 80°20' East. The district is surrounded by Kancheepuram district in the South, Vellore district in the West, Bay of Bengal in the East and Andhra Pradesh State in the North. The district spreads over an area of about 3422 Sq.km.

The average rainfall of the district is 1383.2 mm, of which the North East monsoon contributes to the tune of 589.3 mm. The actual rainfall received during the agricultural year 2019 is 1152 mm. The average temperature of the district is - Maximum 37.9°C and Minimum 18.5°C.

2.2 Population details

The Detailed Demographic profile of the Tiruvallur District is explained clearly with the comparison of 2001 and 2011 census detailed below;

Table 3: Demographic Details

	Population		Growth rate %	Density		SC pop		ST pop		SC pop %		ST pop %	
	2001	2011	2001-11	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Ellapuram	111786	127920	14.43	446	510	37011	45083	2165	4504	33.11	35.24	1.94	3.52
Gummidipoondi	159598	190541	19.39	380	453	40205	49849	3617	5100	25.19	26.16	2.27	2.68
Kadambathur	107557	127964	18.97	405	482	32791	41231	2249	2782	30.49	32.22	2.09	2.17
Minjur	200655	233320	16.28	435	503	70035	81849	3612	4998	34.9	35.08	1.8	2.14
Pallipet	93562	109577	17.12	562	658	20256	25018	3788	3878	21.65	22.83	4.05	3.54
Poonamallee	431758	659922	52.85	2421	3701	89977	134523	3781	4024	20.84	20.38	0.88	0.61
Poondi	90962	108253	19.01	273	325	32360	39924	3154	4442	35.58	36.88	3.47	4.1
Puzhal	449350	596156	32.67	3847	5104	72765	107253	1484	1700	16.19	17.99	0.33	0.29
R.K.Pet	89799	104496	16.37	510	594	18016	23040	719	865	20.06	22.05	0.8	0.83
Sholavaram	130751	156542	19.73	701	838	35503	42245	2565	2944	27.15	26.99	1.96	1.88
Tiruttani	103939	119011	14.5	559	640	21445	25803	3638	3311	20.63	21.68	3.5	2.78
Tiruvalangadu	81843	92280	12.75	312	352	26157	31494	2542	2977	31.96	34.13	3.11	3.23
Tiruvallur	145648	195542	34.26	747	1003	47764	64549	1921	1938	32.79	33.01	1.32	0.99
Villivakkam	557548	906580	62.6	2524	4104	56573	109785	2623	3780	10.15	12.11	0.47	0.42

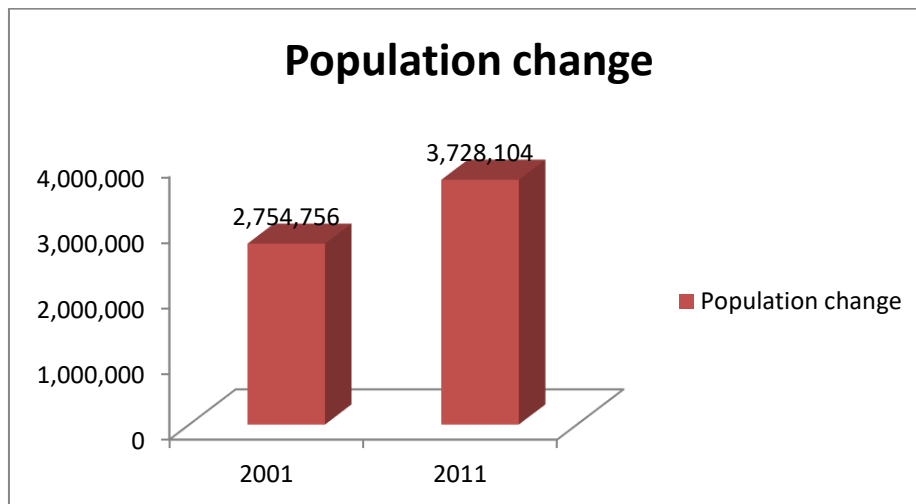
Source: District Human development, 2017-18

The population of this district is 3728104 persons with 50.32% of Males and 49.68% of Females. The literacy rate is 84.03% as per 2011 Census. In respect of Category of Workers, 33% of the populations are Main Workers. Out of the total Main Workers, Cultivators and Agricultural Laborer's shared 10% and 29% respectively as per 2011 Census.

2.2.1 Decadal growth for 2001 to 2011

Demographic transition indicates changes in the population characteristics with a mix of a positive and a negative aspects human development.

Graph 1: Decadal Change



Source: District Human Development report 2017

It also clearly shows that population growth is increased 35% due to the rapid growth of Industrialization in the District due to migration of people for employment purpose.

2.2.2 BASIC DEMOGRAPHIC INDICATORS

The Table 4, shows the decadal growth of the district in terms of Population, Density, Urban population and Sex ratio.

Table 4: Basic demographic Indicators

Sl. No	Indicators	2001	2011
1	Population No.	27,54,756	37,28,104
2	Decennial growth (%)	23.06	35.33
3	Density of population per sq. km.	776	1098
4	Urban population (%)	54.45	65.1
5	Sex ratio (Females per 1000 males)	971	987
6	Percentage of 0-6-year-old	12.0	10.88

Source: District Human Development report, 2017

Demographic transition indicates changes in the population characteristics with a mix of a positive and a negative aspects human development.

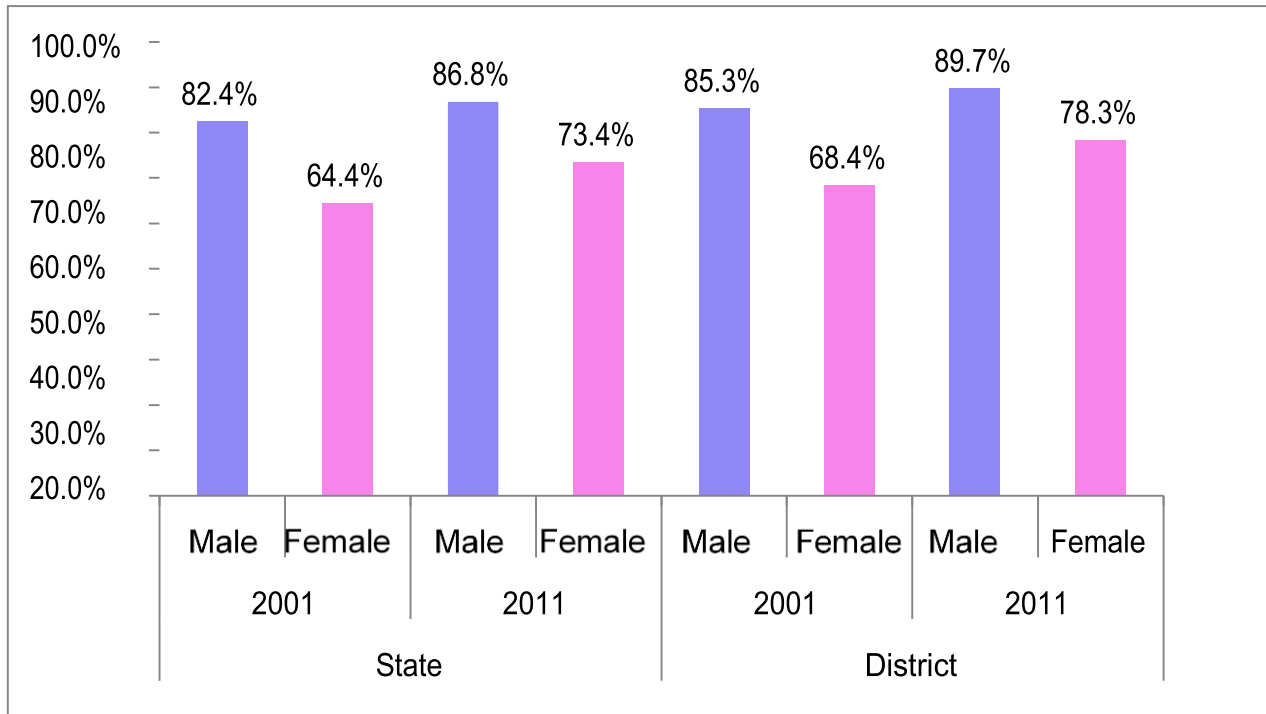
Population of Tiruvallur district was 3,728,104 in 2011 registering a growth of 35.33 % over 2001 population. Intra district growth trends reveals varying degrees of growth percentages among the blocks ranging from 62.60 % in Villivakkam and 12.75 % in Thiruvallangadu block. High growth of population in Villivakkam, Poonamallee, Puzhal, and Tiruvallur blocks is due to their being located close to Chennai metropolitan area and also the economic activities in the blocks. Social group-wise percentage population to total population was 22.04 and 1.27 for SC and ST respectively.

2.3 Literacy and Education

The school education system in Tamil Nadu is characterized by high literacy rates, enrolment and Completion rated and impressive facilities for higher education. Mostly significantly education system has been made accessible to marginalized groups and women. Higher enrolment rated in primary and upper primary classes are an important indicator for education empowerment of the people.

Graph 2: Literacy Rate

The Comparison of Male and Female Literacy Rate to the 2001 and 2011 census details is given below;



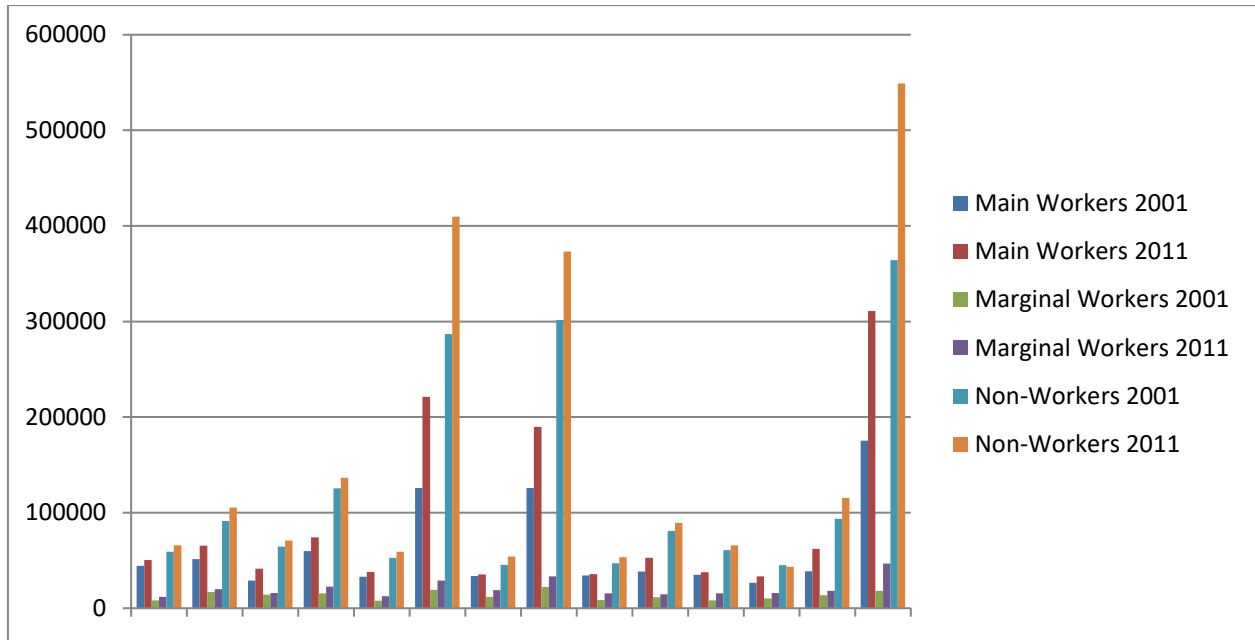
Source: Census report, 2011

The literacy rate is 84% in 2011 in the district. There was an increase in literacy rate by 7% in between 2001 and 2011. There has been a positive change in both male and female literacy rates, with a 4.4 % increase in literacy among men and approximately 10 % increase among the women during the same period. The higher level in female literacy is encouraging from the gender perspective.

2.4 Employment Details

The workers details of Main Workers who has employment for more than 6 months and marginal workers who are seasonal workers and Non-Workers has been compared with the 2001 and 2011 census details is shown below;

Graph 3: Employment details



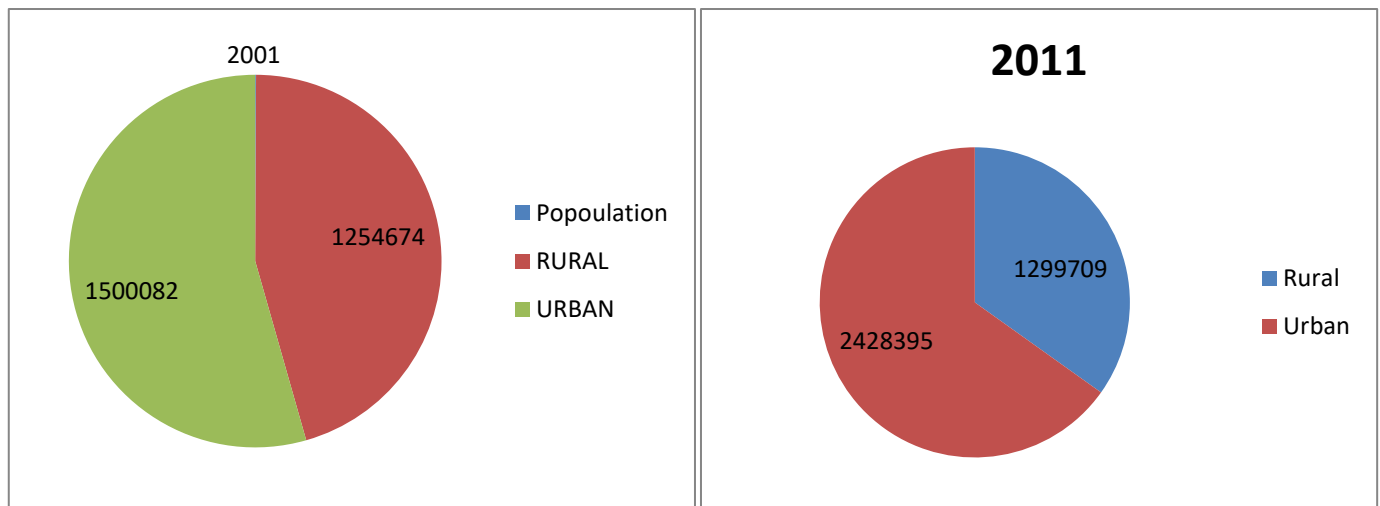
Source: Population Census, 2011

Workers Participation Rate (WPR) is the proportion of workers to the total population. While, the total population in this district has increased from 2,754,761 in 2001 to 3,728,104 registering an increase by 35.33% during the same period.

2.5 Rural & Urban Population

The Rural & Urban Population of the year 2001 and 2011 is given below table;

Graph 4: Rural & Urban Population



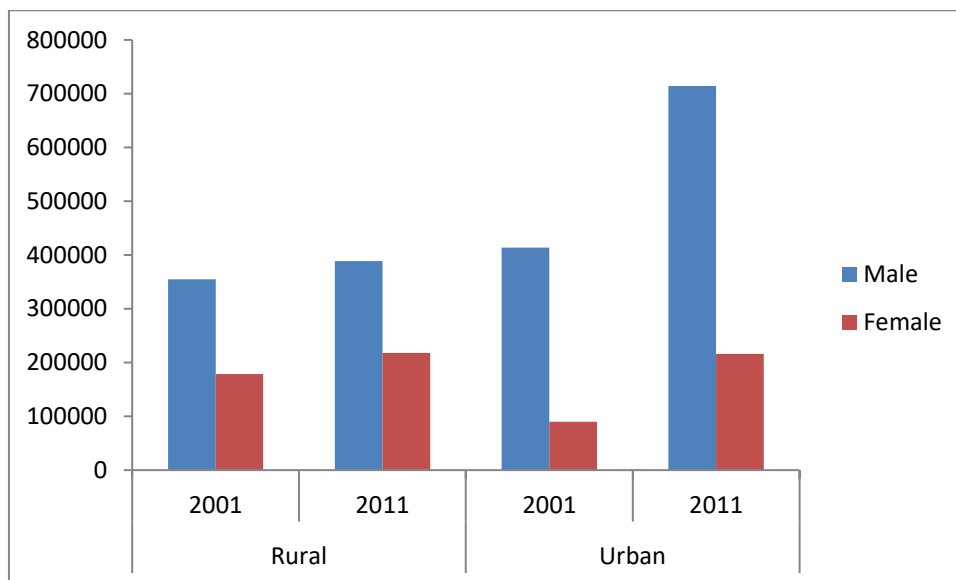
Source: Census, 2001 & 2011(Human Development report, 2017)

The Rural population in 2001 is 27,54756 Persons and urban population in 2011 is 37,28104 persons. 23.46 % in the district in 2011. The female participation rate varies among the blocks ranging from 15.51 % in Puzhal to 44.70 % in Tiruvalangadu. Villivakkam block has highest female population with 448,760 with very low female work participation rate. As a result, overall unemployment is more striking in urban locales than in villages.

2.5.1 Number of Workers Population

The Male and Female workers contribution in the rural and urban area are as follows

Graph 5: Number of Workers Population



Source: Census, 2001 & 2011(Human Development report, 2017)

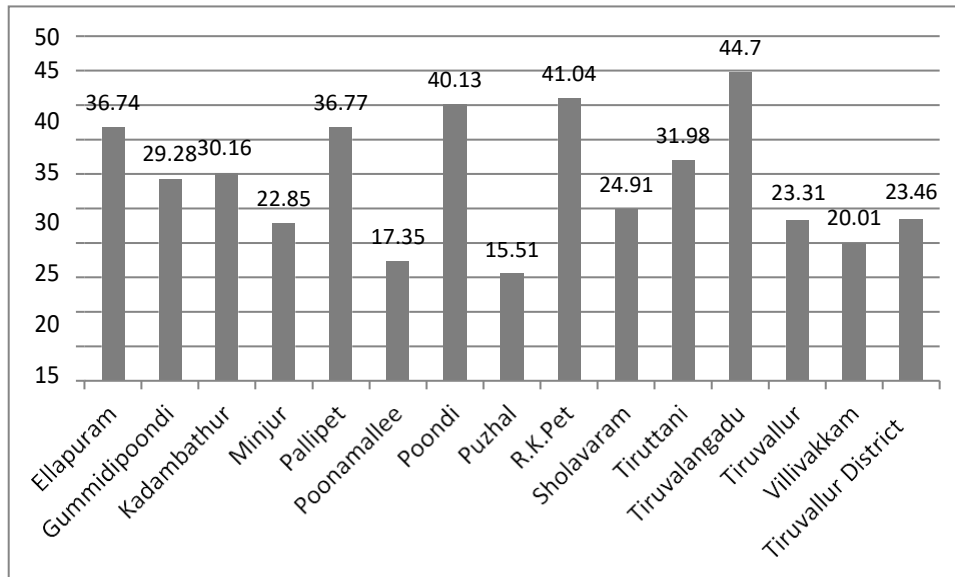
The number of male and female workers in 2001 in 10, 37,097 persons and in 2011 the total workers in 2011 is 15, 38,054 persons.

As per 2011 census, 12, 47918 main workers, 2, 90136 Marginal workers and 2190050 Non-workers were present in Tiruvallur district.

2.5.2 Female Worker Participation Rate

According to the 2011 census report, the Block wise Female Worker Participation is been shown in the graph below;

Graph 6: Female Worker Participation Rate



Source: District Human Development report 2016-17

Overall female worker participation rate is 23.5 %, however, it is better in rural areas (33.6 %) compared to urban areas (18%). Among the female workers, 65.72 % was engaged in the non-agricultural sector indicating more employment opportunities were available in the industry and service sectors in the district. However, after the advent of SHG movement with official patronage under the NABARD SHG-Bank linkage programmed, access to bank credit has increased significantly for poor women enabling them benefits such as micro credit services for their income generating activities and other savings and insurance services linked to credit.

3 Community Based Organization (CBO's)/ Institutions

Community Based Organizations (CBOs) such as Village Poverty Reduction Committees (VPRCs) and Panchayat Level Federations (PLFs) were promoted to provide services to poor. These CBOs leverages financial support from banks and provide support to the members for the livelihood activities. There is a significant Number of NGOs promoted SHGs in the district and they do support functioning and monitor the SHGs financial performance.

Table 5: Details of CBO's

Name of the Community Based Institutions	Numbers of Institutions
Total Panchayats	526
Village Poverty Reduction Committee	563
Total Panchayat Level Federations	526
Total Number of Self-help groups	15780
Total number of Members	185755
Number of Community livelihood groups	14

Source: TNSRLM, 2019

3.1 Farmer Producer Organizations (FPO's)

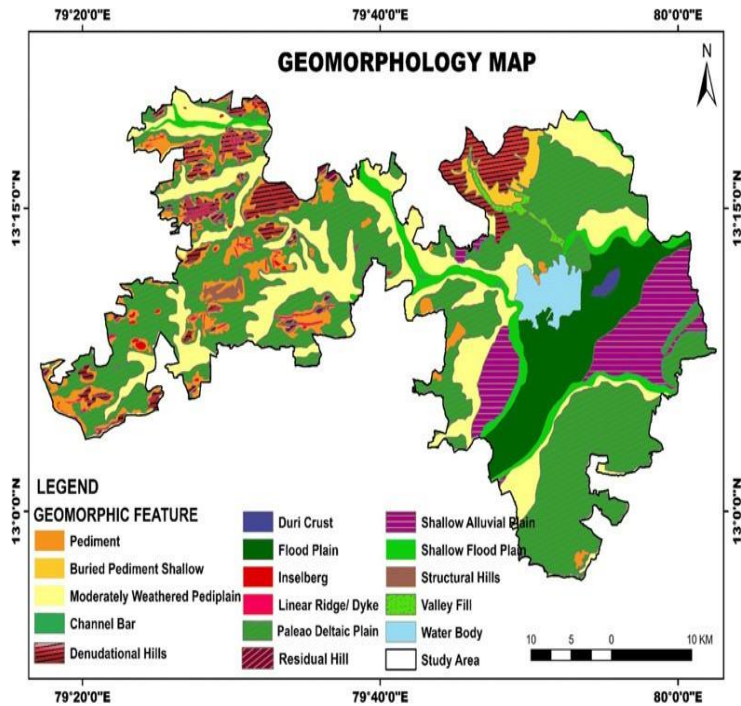
Farmer Producer Organizations (FPOs) and commodity groups have been formed with the focus on enterprise development. There are 9 registered FPO's in the district in which 7 FPO's are all supported by National Agro-foundation (NAF) and 2 FPO's are supported by DHAN Foundation.

Table 6: Farmer Producer Organizations

S.No	Farmer Producer Company	Supported by	Product Involved	Block	Member
1	<i>Ponneri farmer producer company Ltd.</i>	National Agro Foundation	Pulses	Minjur	1000 member
2	Vanmugil CFFPC	National Agro Foundation	Pulses	Ellapuram	1000 member
3	Rathinasabhai CFFPC	National Agro Foundation	Groundnut, pulses, flowers and vegetables	Thiruvallangadu	1000 member
4	Tiruthani CFFPC	National Agro Foundation	Groundnut, pulses, and vegetables	Tiruthani	1000 member
5	Kosasthalai collective farming farmer producer company	National Agro Foundation	paddy, pulses, oil seeds, jasmine	Puzhal	800 members
6	<i>Gummidipoondi good luck FPO</i>	National Agro Foundation	Jasmine, Mango, Paddy, Watermelon, Vegetables	Gummidipoondi	1000 members
7	<i>Sholavaram farmers producer company limited</i>	National Agro Foundation	Vegetables	Sholavaram	1000 member
8	Thiruvallangadu farmer producer company ltd	Dhan	Groundnut, Paddy	Thiruvallangadu	600 members
9	Poondi farmer producer company Ltd.	Dhan	Groundnut, Paddy, Cumbu	Poondi	1000 members

Source: Agriculture marketing dept 2019.

4 Soil and Climate Condition



The soil types pre-dominantly found are red non-calcareous and coastal alluvial. Sandy soil mixed with soda or other alkalizes also found in the district. The soil found nearer to the sea coast is of the inferior in ashes type, which is most suited for raising casuarinas as plants. Also, Tiruvallur has a few varieties of major and minor minerals.

Source: District Survey Report, 2018

4.1 Soil Types & Blocks

The Table 7, shows the type of soil which found different blocks of Tiruvallur district and the crops are been cultivated from the respective block soil types;

Table 7: Soil Types and Areas

Blocks	Type of Soil
R.K.Pet, Pallipet, Ambattur & Puzhal	Red Loam
Minjur & Gummidipoondi	Sandy Coastal Alluvium
Tiruttani & Thiruvalangadu	Red Sandy Soil
Kadambathur, & Ellapuram	Sandy Loam and Clay Loam
Poondi & Poonamallee	Sandy Loam
Thiruvalangadu, Gummidipoondi Minjur & Sholavaram	Clay Soil

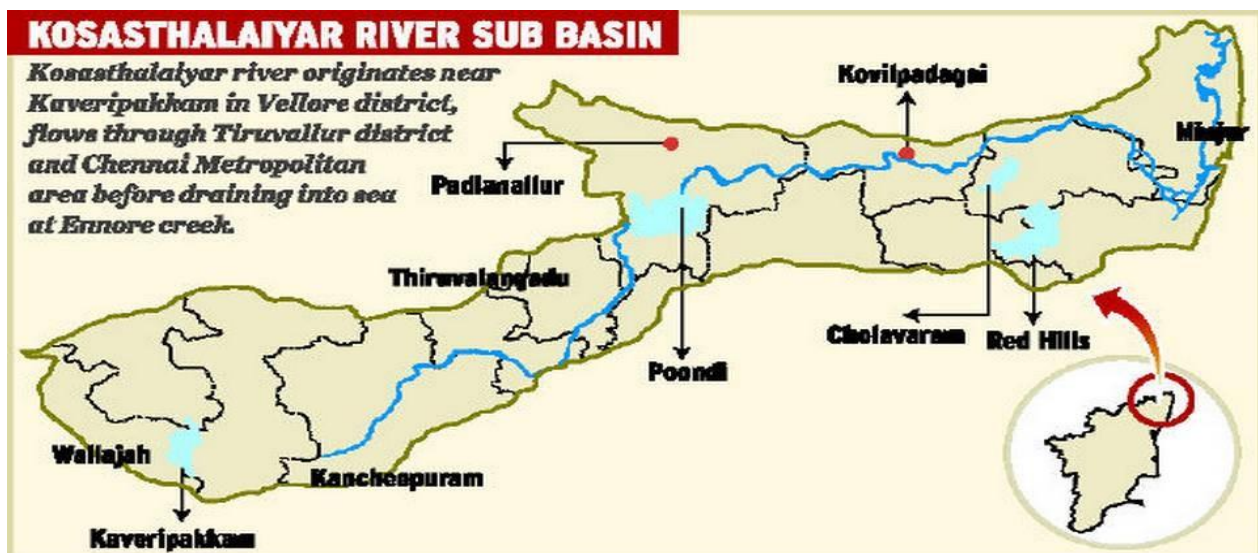
Source: District Statistics dept as on 2018-19.

Tiruvallur District has started increasing trend, the highly industrialized districts like Chennai, Kancheepuram, are depending its sand and rough stone need on Tiruvallur Districts.

4.2 Water Sources

Kosasthalaiyar is 136-kilometre (85 mi) long and originates near Vellore District and drains into the Bay of Bengal. Its northern tributary Nagari River originates in Chittoor district of Andhra Pradesh and joins the main river in the back waters of Poondi dam. Its catchment area spreads in Vellore, Chittoor, North Arcot, Thiruvallur and Chennai districts. It has catchment area in Vellore District with a branch near Kesavaram Anicut and flows to the city as Cooum River and the main Kosasthalaiyar River flows to Poondi reservoir. From Poondi reservoir, the river flows through Thiruvallur District, enters the Chennai metropolitan area, and joins the sea at Ennore creek. The river has 9 check dams. There are two check dams across the river at Thamarapakkam and Vallur. The excess discharge in the river is controlled by the Thamarapakkam Anicut located across the river in the downstream of Poondi reservoir. Vallur Anicut is a small check dam constructed near Minjur across the river to control water levels and feed irrigation channels in the area.

Water Sources



Source: District Census Survey Report 2018

This above figure indicates the Source of Water Supply, 1968 catchment areas in the district, number 70718 wells, 2912 bore wells One Reservoirs is located at Poondi in total capacity of 1968 Mc.ft. 1886 Tanks are available around the district.

(Source: Statistical Handbook 2017-18)

4.3 Ground Water Level Indication

The below table 8, shows block wise Ground water Categorization level indication

Table 8: Ground water Categorization level indication

Categorization of Ground Water Level	Names of the Blocks
Safe [Up to 70% utilization]	Villivakkam, <i>Gummudipoondi</i> , Puzhal, Poondi, <i>Sholavaram</i> , Tiruvallur, Thiruvalangadu,
Semi Critical [Utilization between 70 & 90%]	Poonamallee
Critical [Utilization between 90 & 100%]	
Over-exploited [Utilization beyond 100%]	Ellapuram, <i>Minjur</i> , Pallipet, R.K.Pet, Thirutani, <i>Kadambathur</i> ,

Source: NABARD PLP 2019-20, Tiruvallur District

The ground water irrigation in Tiruvallur District is widely distributed covering all the blocks and surface water source is restricted to 18308 ha.

Ground water development forms the major part of the Minor Irrigation programmes and includes construction of dug-wells, dug-cum-bore wells, filter points, shallow tube wells, etc. There are no perennial rivers in the district. However, seasonal rivers flowing through the district are Kosathalaiyar, Araniar, Nandi, Kallar, Coovam and the Buckingham Canal. There are three major lakes viz. Puzhal, Poondi and Sholavaram which are mainly meeting the drinking water needs of Chennai.

Soil, Water and Climate Status



Soil

Sand Coastal
Alluvium
Red Sandy
Sandy Loam
Clay Loam
Clay Soil



Water

1. Canals : 17
2. Length (Km.) : 189
3. Tube Wells: 21495
4. Bore Wells: 1689
5. Reservoirs: 1
6. Tanks (Nos.) : 1896



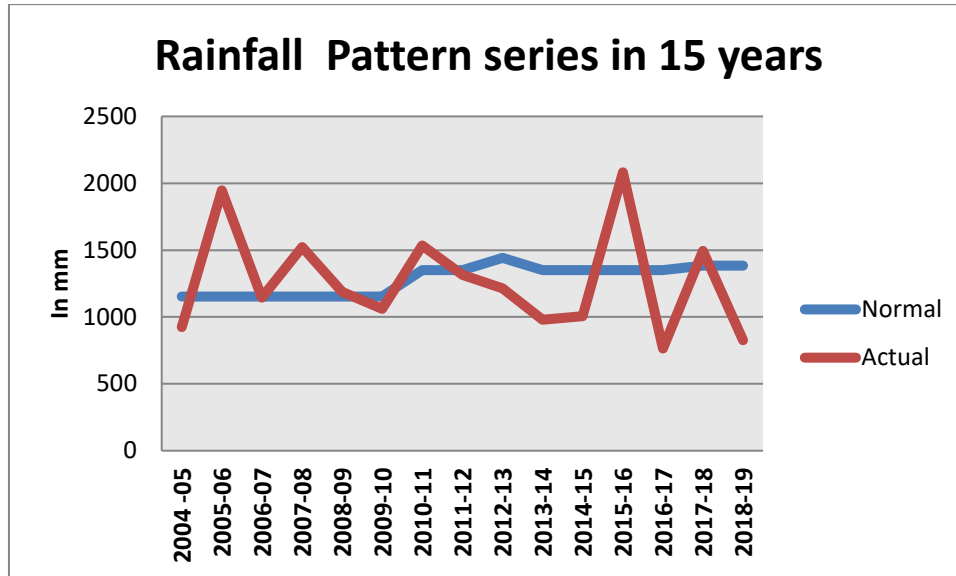
Climate Zone

North Eastern
Altitude (m) -100-200
Annual rainfall (mm) : 1152
Crops grown - Rice, Millet, sorghum, gingelly, finger millet, groundnut, red gram, sugarcane

4.4 Rainfall

The average rainfall of the district is 1383.2 mm. The average temperature of the district is a maximum of 37.9°C and a minimum of 18.5°C.

Graph 7: Rainfall pattern (15 yrs.)



Source: Department of Statistics, Tiruvallur- 2017-18

Classification of Land

The Classification of lands and its total area details are given below;

Table 9: Classification of Land

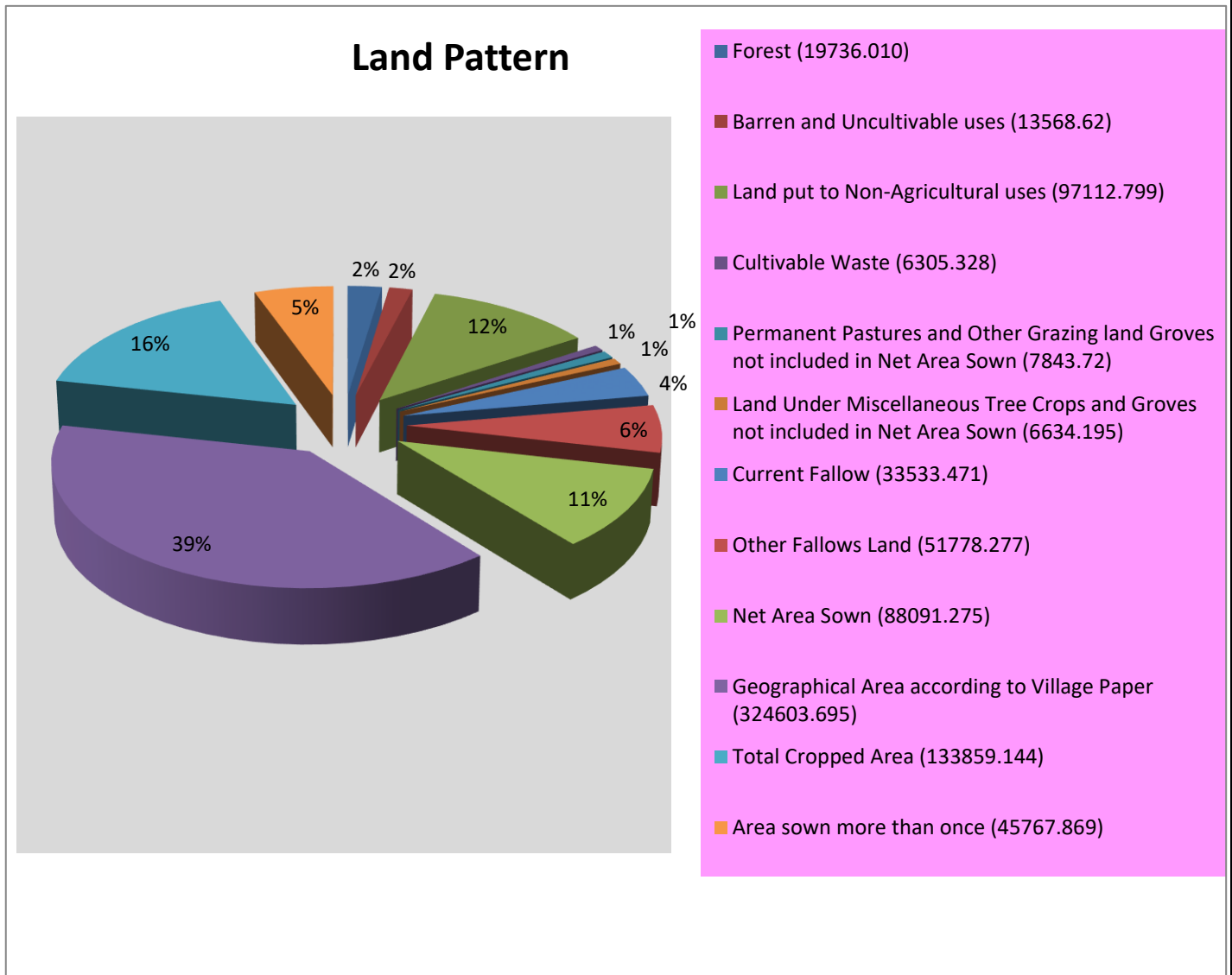
S. No	Classification	Area (in Hec.)
1.	Forest	19736.010
2.	Barren and Uncultivable uses	13568.620
3.	Land put to Non-Agricultural uses	97112.799
4.	Cultivable Waste	6305.328
5.	Permanent Pastures and Other Grazing Land	7843.720
6.	Land Under Miscellaneous Tree Crops and Groves not included in Net Area Sown	6634.195
7.	Current Fallows	33533.471
8.	Other Fallows Land	51778.277
9.	Net Area Sown	88091.275
10.	Geographical Area according to Village Papers	324603.695
11.	Total Cropped Area	133859.144
12.	Area sown more than once	45767.869

Source: District Statistical dept.2018-19

4.5 Land use Pattern

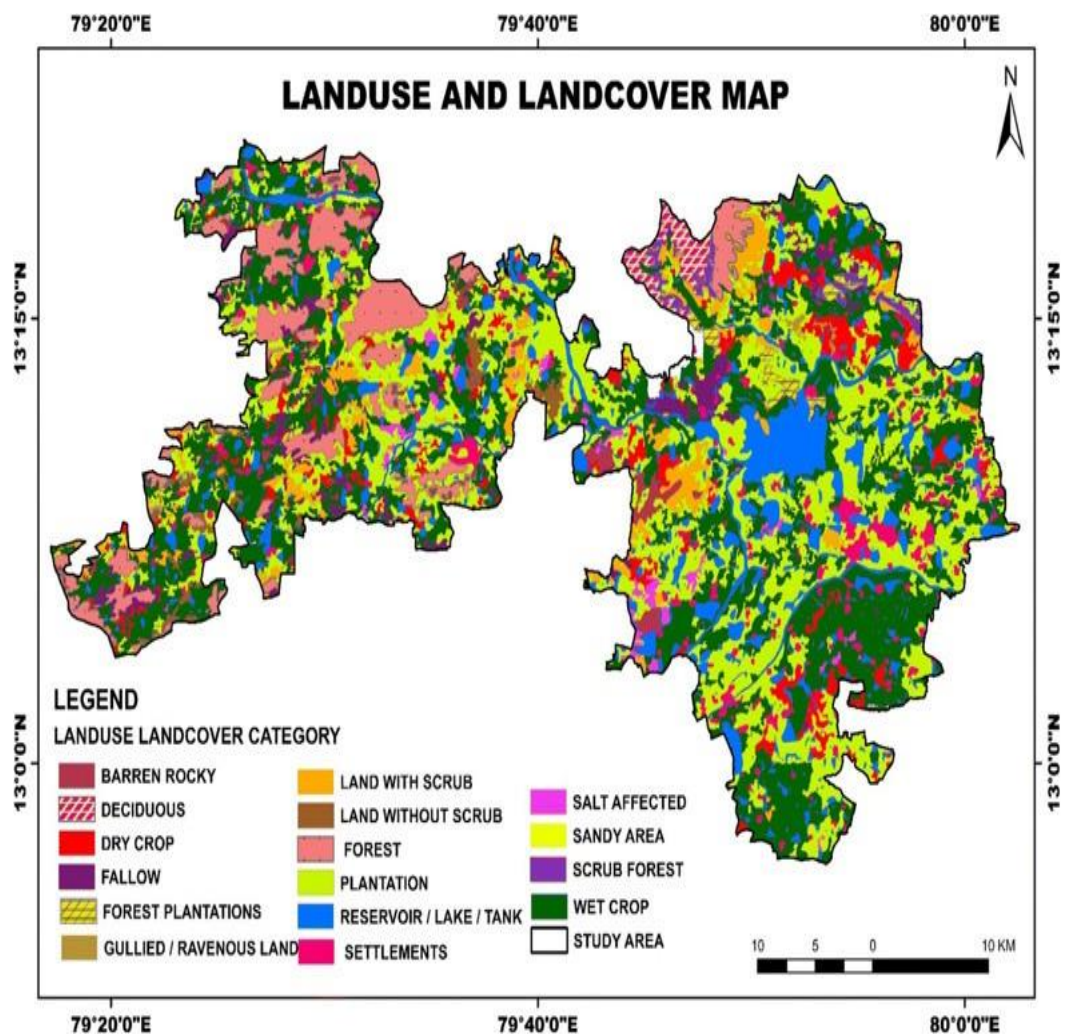
The land use pattern and its percentage are indicated in the figure given below;

Graph 8: Land Use Pattern



Source: District Statistical department 2018- 19.

The general land use of an area depicts an idea of overall areal utilization of resources, natural or cultural. The changes in the land use and land cover of Tiruvallur district are evaluated from the differences between five years of period 12% Land is being put to use in areas other than agricultural. Agricultural Land is increasingly being used for building purposes, especially around urban areas. So, pastureland is declining as a result of pressure from agriculture. The land use and land cover will continue to affect resilient human communities and ecosystems as a result of climate change.

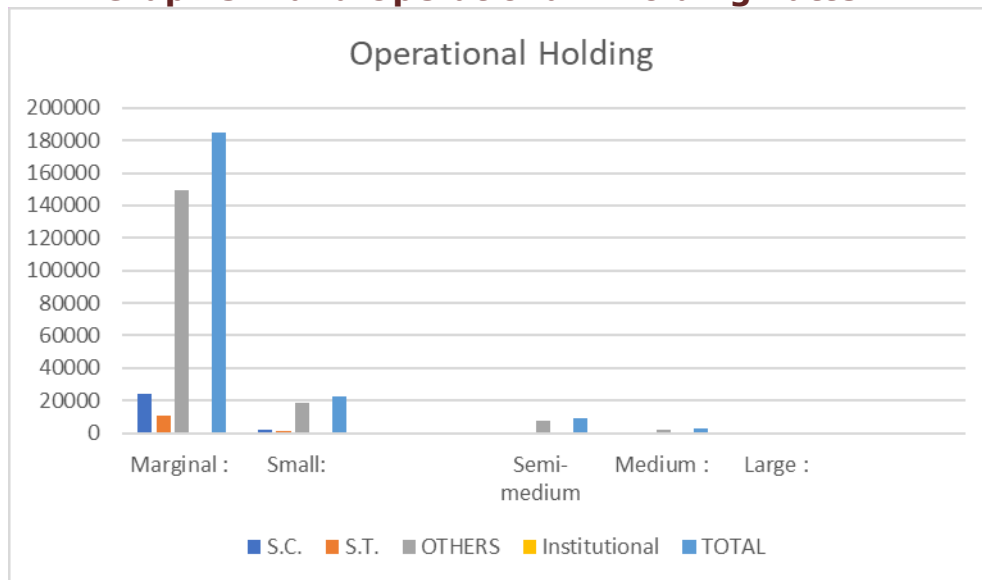


Source: District Survey Report, 2018

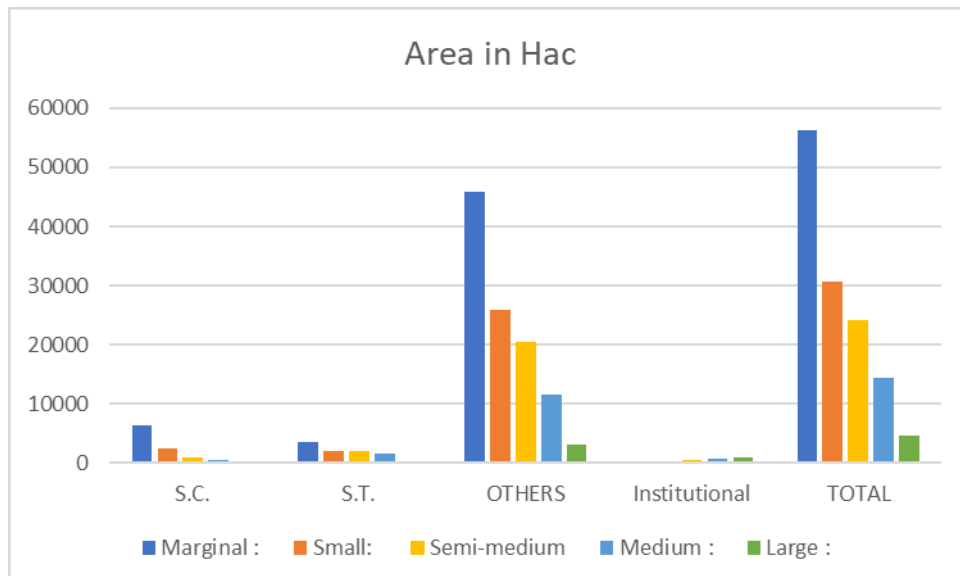
4.4.1 Land Holding Operation

The Number and area of operational landholdings by the people belong to SC's, ST's, others and Institutions is indicated below; Marginal: 0.00 – 0.99 Ha Small: 1.00 – 1.99 Ha, Semi-medium 2.00 – 3.99 Ha Medium: 4.00 – 9.99 Ha Large 10.00 – 20.00 Ha.

Graph 9: Land Operational - Holding Pattern



Graph 10: Classification of operational - Land holdings



Source: Agri-Census -2010-2011

Major land holding in Tiruvallur district is owned by the others rather than the marginal land holdings owned by SC and ST people.

4.5 Forest Area

The forest area is classified in to three categories as follows;

Table 10: Forest area

	Forest Area (Hec.) (a+b+c)	21614.647 (Ha)
a.	Reserved Forests	18146.077
b.	Unclassified Forests	1491.31
c.	Reserved Land	1977.26

Source: District Statistical dept, 2018- 19

The area under forests all of 21614.64 7 sq.km, is the total geographical area of the district. Forest covering Tiruvallur is quite scanty, in comparison with forest cover in Tamil Nadu.

4.6 Rural Electrification

Almost 100 per cent of the hamlets in Thiruvallur district are covered under rural electrification. The district also has Thermal power plant units in Ennore, Solar Power plants in Gummidipoondi, Hydro- Electric Power plant Kattupalli, etc., which does not only power supply to district and its industries but also rest of the districts.

5 Connectivity

The transportation in Tiruvallur is more accessible to reach all regions of the district and state points through its various modes such as;

Roadways:

The Chennai International Airport is just 42km South-east of the town which could be reached in about 45 minutes by road. The airport is placed in between Chennai-Bangalore broad-gauge railway line and Chennai-Tirupathi Trunk road. The Classification of roadways is as follows:

- NH 716 – Chennai – Kadappa- Tirupathi
- NH 16 – Chennai – Calcutta
- NH 48 – Chennai - Bangalore

Railways:

Many places in this district are connected by Railway Routes and there are 120 Kms of Route Length and 321 Kms. Of Track Length lay under Broad gauge and so far, 37 Railway Stations are instituted in this district.

Seaport:

Tiruvallur District has two sea port which is a major cargo handling mainly Coal, Petroleum Product and Corporate goods. The two major Ports are

- Kamarajar Port (Ennore Port): Kamarajar Port, located on the Coromandel Coast about 24 km north of Chennai Port, Chennai, it is the 12th major port of India, and the first port in India which is a public company. The port was declared as a major port under the Indian Ports Act, 1908 and incorporated as Ennore Port Limited under the Companies Act, 1956 in October 1999. The Kamarajar Port is the only corporatized major port and is registered as a company. Today, the landlord port is the dominant port model in larger and medium sized ports. Cargo handled in Ennore Port is 38 MMTA (Million Metric Tonnes Annually)
- AdaniKattupalli Port (Kattupalli Port) - AdaniKattupalli Port Private Limited (AKPPL) is private port fully corporate port handling major foreign goods which have exported and imported by major private players. The Cargo handled in Kattupalli port is 25 MMTA (Million Metric Tonnes Annually)

• **Transportation**



Road

1. Road State Highways (SH)	505.80 km
2. District Road	315.565Km
3.ODR (Other District Roads)	855.251km



Rail

1. Route Length (in Kms.)	120
2. Track Length (in Kms.)	321
3. No. of Railway Stations	37



Port

1 Kattupalli	450 Vehicles
2. Kamarajar	794 Vehicles



6 Agriculture and Allied activities

Tiruvallur district has large potential opportunity in Agriculture and allied activities, it is well placed, good infrastructures and opportunity with neighbouring state which can be leveraged with the changing technologies and market forces.

6.1 Seasonality details

The cropping pattern and water source conditions are tabulated in the below table

Table 11: Seasonality Details

S. No	Crop	Season	Month
1	Paddy	Sornavari	April – July
2		Navarai	Dec - March
3		Samba	August -December
4	Millets	Kharif	April – Sept
5		Rabi	Oct – March
6	Pulses	Kharif	April – Sept
		Rabi	Oct – March

Source: District Agriculture Dept.2019

12. Cropping Pattern

S.No	Crops
1	Paddy – Paddy - Paddy
2	Paddy – Millets - Paddy
3	Paddy – Pulses - Paddy
4	Paddy – Oilseeds - Paddy
5	Paddy – Pulses - Oilseeds
6	Sugarcane – Annual Crop

Source: District Agriculture Dept.2019

6.2 Crop production & Area

Table 12: Area and Percentage of Crop Production

S. No	Crops	Area ('hec.)	Production (M.T. tonnes in Lakhs)
A.	FOOD GRAINS:		
	a) Cereals & Millets		
	Paddy	89126	4.0133
	Cumbu	528	0.003696
	b) PULSES		
	Black gram	1174.83	0.00939
	Green gram	9301.95	0.0679
B.	OIL SEEDS		
	Groundnut	5483.89	0.2369
	Gingerly	2126.17	0.00616
C.	OTHER CROPS:		
	Sugarcane	5452.05	5.407
	Ragi	283.9	0.0088

Source: District Agriculture Dept. 2018-19

Tiruvallur District is an agricultural district with major crops growing is Rice, Cumbu, Ragi, Green gram, Black gram, Sugarcane and Groundnut. Apart from this, certain horticultural crops like mango, guava and vegetables have also been cultivated successfully. Net areas under cultivation in the district during 2018-19 were 113688.94 hectares. The increased demand for land for construction due to its close proximity to Chennai metropolitan city and industrial hub in Tiruvallur district has created immense pressure on the land use pattern.

Table 13 -Agriculture Crops Production 2019-20 (Provisional data till December 2019)					Unit:(Ha)	
S.No	Block	Paddy	Millets	Pulses	Oilseeds	Sugarcane
1	Ambathur	972	6.33	43.56	7	0
2	Poonamallee	2006.7	0	173	2	0
3	Puzhal	219	0	3	0	0
4	Sholavaram	9745	0	0	4	10
5	Minjur	16943.33	0	100.18	0	0
6	Gummidipoondi	13297	13	438	610	10
7	Ellapuram	9843.82	7	607	80	101
8	Thiruvallur	5379.73	1	604.15	8	56
9	Kadambathur	2769.7	6	366.8	27.85	12
10	Poondi	5633.94	224	135	452.5	283
11	Thiruvalangadu	2210.82	148	201.6	288.6	341.11
12	Thiruthani	1395	76.4	147.15	542.2	744
13	Pallipattu	666	28.4	111.7	317.8	2021
14	R.K.pet	1028.165	24.1	124.25	507.55	485.1
	Total	72109.565	534.43	3055.39	2847.5	4063.21

Source: District Agriculture dept, 2019-20

The main agriculture production in Tiruvallur highlights that Paddy, Groundnut, Sugarcane, Black gram, and Green gram, Cumbu, Gingelly, Chillies and Banana are the main crop cultivation.

The TNRTP blocks have main concentration on Paddy, Chillies, Ragi and Cumbu in four blocks and horticulture crop like Banana, Watermelon and guava which also been cultivated in TNRTP Blocks of Gummidipoondi, Sholavaram and Kadambathur.

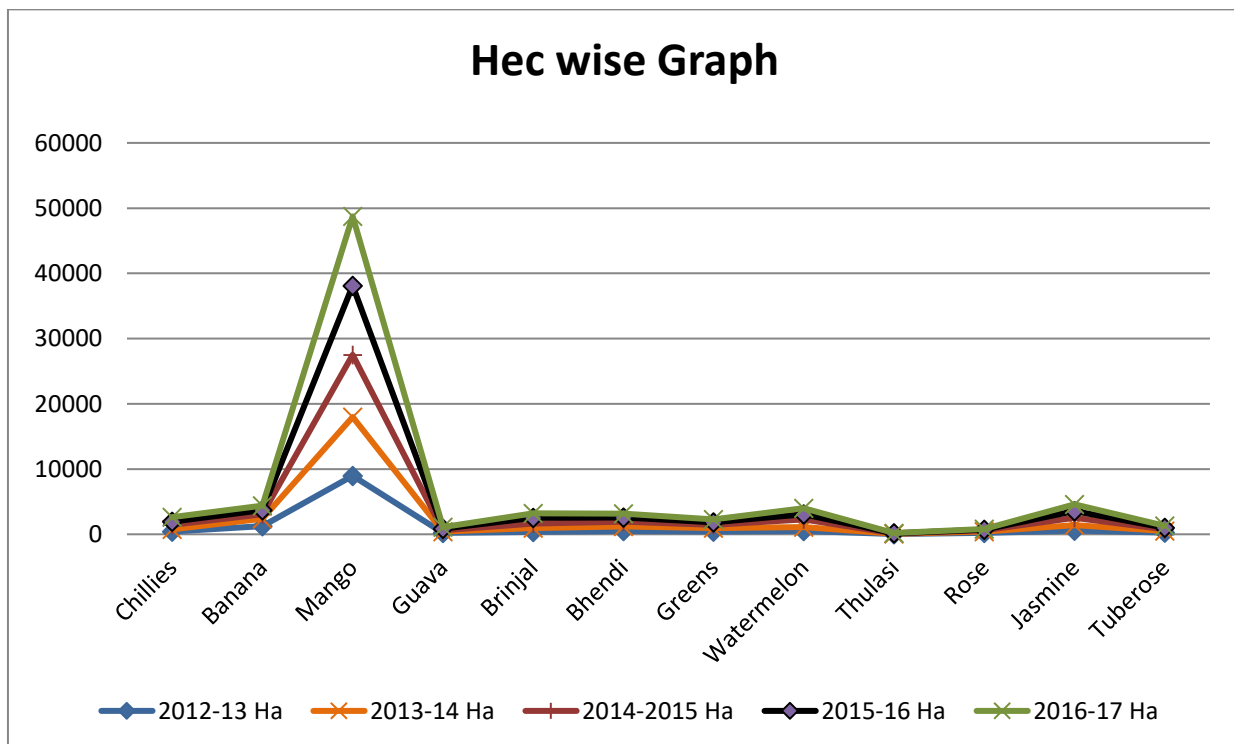
Table 14: Horticulture crops

S. No	Horticulture Crops	Area (Ha.)
I.	Fruits	
1	Banana	493.70
2	Mango	11057.67
3	Guava	236.58
4	Watermelon	834.45
II.	Vegetables	
1	Tapioca	57.035
2	Brinjal	546.94
3	Lady's Finger	482.93
4	Greens	472.30
III.	Flowers	
1	Tuberose	195.65
2	Jasmine	1121.42
3	Mullai	45.265
4	JadhiMalli	81.770
5	Champangi	195.65



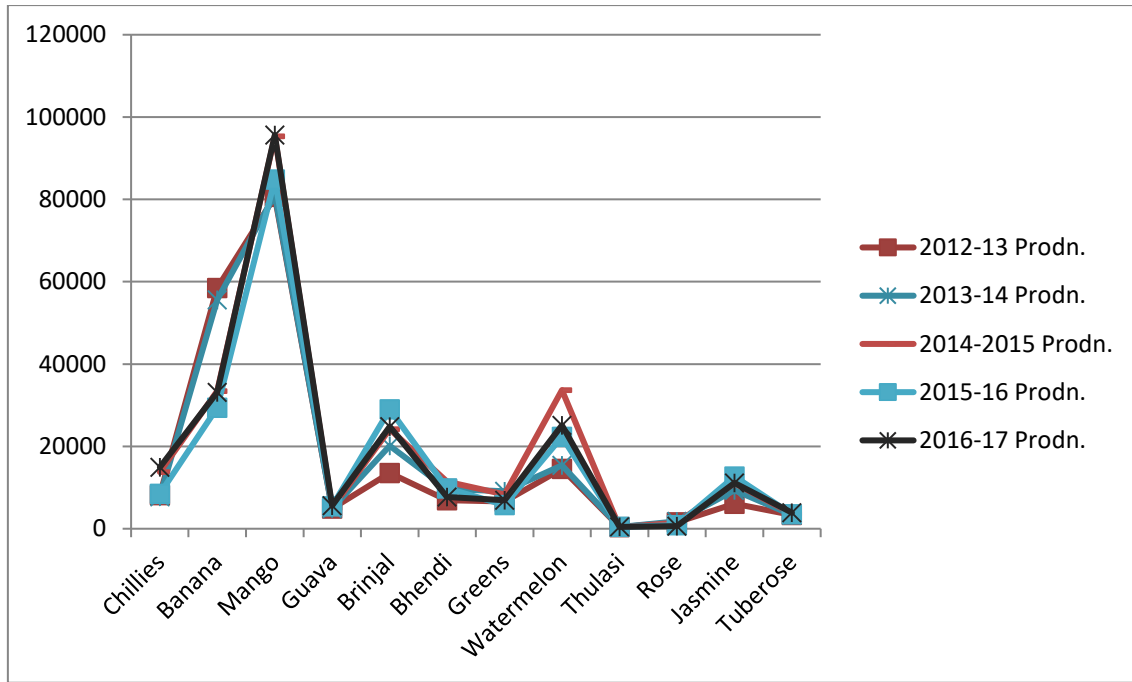
Source: District Statistical dept. -2018-19

Trend of Horticulture crops - Hectares wise from 2012-2017



Source: Horticulture Department, Tiruvallur -2012-17

The Year Wise trend of Horticulture Production from 2012-2017



Source: Horticulture Department -2012-17

6.3 POTENTIAL COMMODITIES UNDER FRUITS, VEGETABLES AND FLOWERS

Table 15: Major Crops in Area (ha.)

Crop	Tiruvallur
Green gram	9301.95
Mango	10631.001
Water melon	793.880
Paddy	89126

Source: District Agri. department 2018-19

Tiruvallur district is most suitable for cultivation of Horticulture crops especially in Thiruvalangadu, Tiruttani, and Sholavaram blocks where they are predominantly cultivated. Under horticultural crops the district leads in the production of Fruits, vegetables and floriculture, medicinal plants, are also grown. In perennial fruits cultivation, Green gram is being cultivated as a major crop. Greens and Water melon are also lead crops in the in the district. The major vegetables cultivated in the district are Lady Finger, Brinjal and greens. Annuals Banana is another major crop in the district.

The types of flowers cultivated are classified as Cut Flowers

In this district, the major cultivated flower crops Rose, Jasmine, Jadhimali, Mullai Jasmine and Champangi etc.

Loose Flowers: Jasmine, rose are being grown in this district as a cash crop with huge market potential in Chennai metro city.

Jasmine have got various types such as Jadhimali, Mullai, Champangi are well grown in this district. Thulasi which is an organic herb cultivated in large quantity and has been exported to various district and States.

6.4 Animal Husbandry

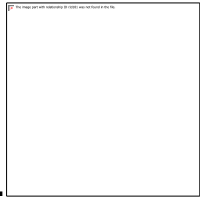
Animal husbandry is an auxiliary occupation in Tiruvallur district due to the presence of number of small and marginal farmers. Presently, there are four Government programmes in operation viz. Backyard Poultry Farm Scheme, Buffalo Rearing Scheme, Special Animal Husbandry Programme and Special Campaign to Protect Animals. There are five Veterinary Hospitals, 88 Veterinary Dispensaries, 26 sub-centers and 1 mobile veterinary unit, 1 Cattle breeding & Fodder Development office, 1 Animal Disease Intelligence Unit office catering to the needs of the farming community.

Table 16: Livestock details

Animal Husbandry	2011 (19 th Census)
Cattle	267225
Sheep	74780
Goat	187984
Poultry	654317

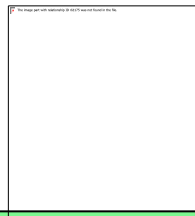
Source: District Animal husbandry dept, 2019

In Animal Husbandry, Tiruvallur district has been gradual increase in animal population with major increase in the poultry, to double the increase in growing pattern.



Goats

Total No. of Goats: 187984
 Produce Goat Milk
 Huge opportunity to promote
 Producer groups can be
 formed



Total No. Of **Cattle**- 267225
 Quantity of Milk per day 193000
 litre/day
 No. of Societies functioning- 275
 Total Number of Families – 11157
 Milk Processing Units with Value
 added products can be promoted



Country chicken-

Total Poultry- 654317
 Huge opportunity to promote
 Producer groups can be formed

6.5 Dairy development

In Tamil Nadu, Aavin has taken various steps like attractive procurement price to milk producers, huge investment in dairy infrastructure at Society, District Union and State Federation level, and encompassing the priceless Milch cows distributed to poor families for uplifting of rural economy.

Based on the unity is strength and the co-operative movement is the base for the all-round development of the nation, co-operative societies are working nearly in all the areas and departments and in each and every level. Especially, for the development of agriculture, industries, fishing etc., the role of co-operative societies is essential one. The district details of dairy units are given below;

Table 17: Details of Diary Units

The Table 17 shows the Dairy Societies and milk produce of Thiruvallur per day;

Details	No. of Units
No. of Societies functioning	160
No. of Milk Societies	160
Total number of members	11384
Number of members supplying milk	3597
Purchase of milk by cooperative society per day	24000 liters

Source: District Statistical Dept. -2018-19

There are 160 milk societies functioning which consist of 11384 members, among them 3597 members supply the milk produced with the total of 24000 liters/per day. Two major Private milk producing company Hatsun Milk Products, Gummidipoondi and Creamlike Dairy Product (Jersey Milk) has it Chilling Units in Sholavaram Block, Tiruvallur District.

6.6 Fisheries development

The total coastal area of the district is about 75000 hectares and has a coastline of 27.9 kilometers for marine fisheries. Prawn and shrimp culture are famous along the coastline of Gummidipoondi and Minjur. The total fish production is to the tune of 8730.864 tones.

Coromandel Coast being severely affected by coastal erosion, most of the coastal communities live on the narrow strip of land between the sea and privately- owned agricultural land, seeking out a living mainly through fishing and related occupations like boat building and drying and preserving fish.

Table 18: Details of Fisheries

Total Coastal Line of the District	27.9Kms
Total Inland Fresh Water spread Area	75000ha
Estuaries and Brackish Water Area	61 sq.km
Marine Fishing Villages	77
Fishing Vessels (Country Craft)	Motorized -3238 (3796 till date) Non-Motorized – 120
Active Marine Fishermen	19489
Inland	
Freezing Plants	- Nil
Ice plants, Cold storages and walk in coolers	3 Ice Plants
Fisheries Training center	
Marine	Fisheries awareness Centre, Pulicat
Inland	Fisheries College & Research Institute, Ponneri.
Export – Fish and Fish Products	
Quantity (Tonne)	8730.864 MTs
Value (Rs.in lakhs)	Rs. 34923.45 Crores

Source: District Statistical dept.-2018- 19

Marine and In-land Fish Production

The total fishing in both inland and marine is given below;

Marine / Inland Fish Production- 2018-19

Marine Fish Production

21827.16 (Quantity in Tonnes)



Inland fish production

15396.19 (Quantity in Tonnes)



No. of Families engaged : 13548



Your Logo Here

26

Source: Fisheries dept, Tiruvallur, 2018-19.

6.7 Sericulture production

Sericulture is produced in Tiruvallur and R.K.Pet blocks of Thiruvallur district and its details are given below;

Table 19: Sericulture production

Name of the Block	Area under Mulberry (in acre)	Production of Cocoons (in Tons)	Value (Rupees)
Tiruvallur	8.00	5528.000	1542312.00
R.K.Pet	26.50	2278.800	720140.00
Total	34.50	7806.800	2262452.00

Source: District Statistics Dept. -2018- 19

Sericulture production has not been yet realized as a main allied farm production, due to intensive concentration on its significant in textile production and its economic demand and growth in economy is considerably high, at present in Tiruvallur district an average of 34.50 acre is cultivated and further is will be promoted.

6.8 Handlooms details

In Thiruvallur district, R.K.Pet and Pallipet, Sholavaram blocks have large number of handloom and power looms. Handloom activities are done by families as a traditional occupation and there is a huge potential in promoting this Textile industries. The details of the handloom clusters are as follows;

Table 20: No. of families engaged in Handlooms

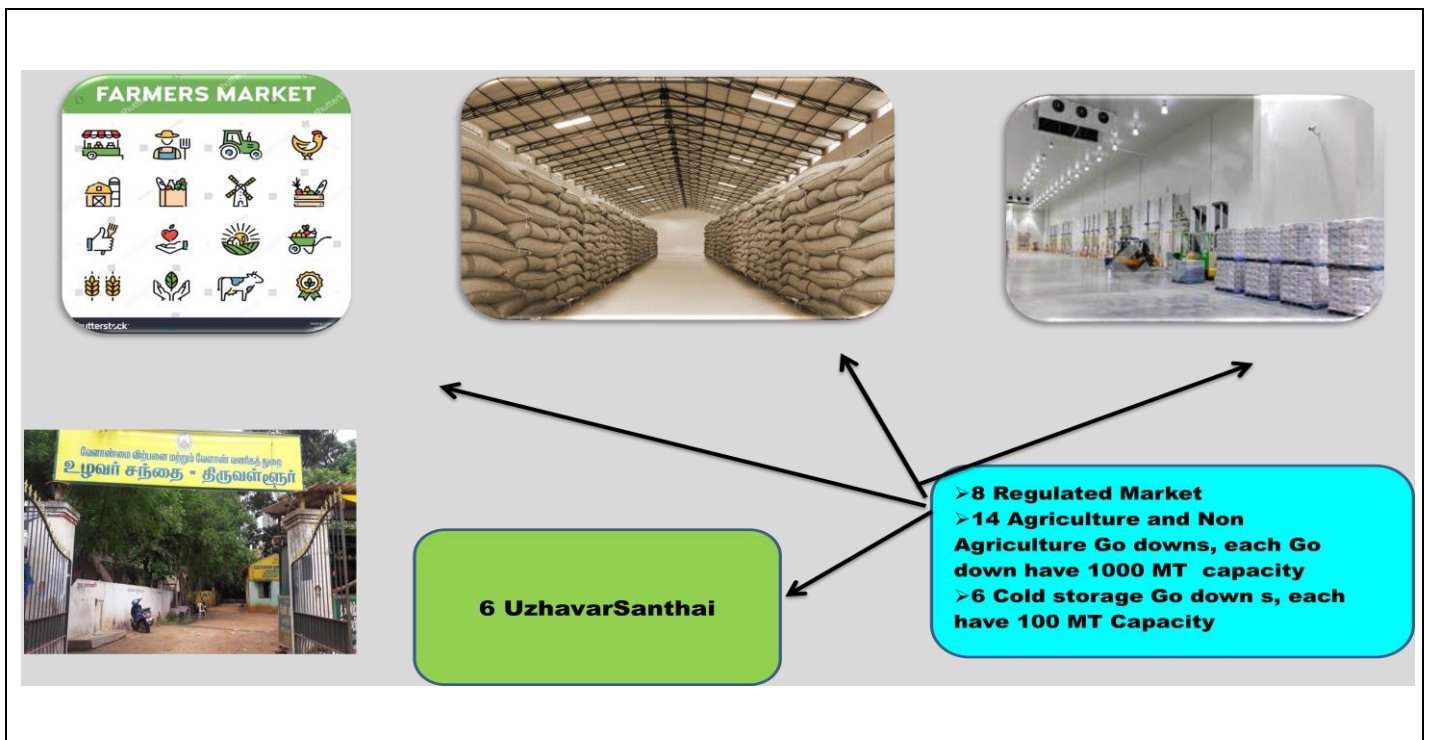
S.No	Name of the Block	No. of the families engaged in handlooms
1.	R.K.Pet	615
2.	Pallipet	472
	Total	1087

Source: District Statistics Dept. -2018- 19

7 Sources of Market

Thiruvallur district has the following

- Eight Regulated Markets are available for selling the agricultural and Horticulture product like Paddy, Cumbu, Chilly, Water Melon and other fruits and vegetables, details given in Table.
- Six Uzhavar Sandhai are functioning for selling the agricultural products such as vegetables, Fruits and Flowers. It's only aim is to make farmer friendly. No middlemen involved farmer get benefits directly by selling fruits and Flowers. Consumers get fresh vegetables, with less price compare to Retail market.
- There are Fourteen Agricultural storage Godowns are available, each Godowns have 1000 Metric Tonnes capacity and 12 Cold storage Godown are available .



7.1 Table 21: Regulated Market (Capacity handled & Centers)

Eight Regulated Markets are available for selling the agricultural and Horticulture product like Paddy, Cumbu, and Chilly, which are given in the following table;

Quantity arrival in (MT's)

Name of the Regulated Market	Paddy	Ground	Gingerly	Cumbu	Jaggery	Chilly	Tamarind	Waste Cotton	Coconut	Ragi
Tiruvallur	9637.165	314.99	9	0	0	0.08	0	0	0	0
Tiruttani	3916.642	78.4	0	15.3	2	23.7	0.2	0	0	0
Nazarathpet	982.325	24.8	0	5	18	20.1	0	612.477	1	5
Uthukkottai	5753.68	307.824	0	36	1.5	4.9	0	0	0	0
Redhills	96271.971	0	0	0	0	0	0	0	0	0
Ponneri	8370.15	0	0	0	2	1.5	0	0	0	0
Gummidipoondi	3483.3	67.48	0	0	2	1.06	0	0	0	0
Pallipattu	1192.5	82.56	0	0	3.1	0.8	3	0	5.5	0
Total	129607.73	876.06	9	56.3	28.6	52.1	3.2	612.477	6.5	5

Source: District Statistical Dept -2018-19

7.2 Uzhavar Sandhai

Uzhavar Sandhai is functioning daily basis, Uzhavar sandhai which helps the farmers to deliver the agriculture and horticulture product to nearby sandhai.

Table-22: Uzhavar Sandhai

Details	Tiruvallur	Tiruttani	Ambattur	Naravari kuppam	Paruthipattu	Perambakkam
Vegetables Received in (MT)	2045.211	1913.65	1203.822	1934.36	2048.552	1842.940
Value (Rs. In Lakhs)	843.405	799.529	468.609	774.149	849.060	821.695
Consumers (Nos.)	517969	478434	33330	485159	514085	460588
Farmers (Nos.)	4429	4850	2337	2792	4429	4439
Average Quantity of arrivals/day (Kgs.)	4.06	3.96	2.64	3.87	4.39	3.65
Nos. of Shops	40	40	100	24	34	18
Average Income of farmer/day	400	500	300	600	400	350

Source: District Statistical Dept -2018-19

In Tiruvallur District, Uzhavar Santhai plays vital role for Agro and Non-Agro products in which the agriculture farmer directly sells agriculture products in a profitable manner.

Table 23: List of Agricultural and Non-Agricultural Storage Godowns

S.No	Taluk	Main Centre	Sub Centre
1	Ambathur	Ambathur	Pandeswaram
2	Poonamallee	Poonamallee	Vellavedu
3	Puzhal	Puzhal	Madhavaram
4	Sholavaram	Sholavaram	Arani
5	Minjur	Minjur	Ponneri, Kolar
6	Gummidipoondi	Gummidipoondi	Kavaraipettai, Pathirivedu
7	Ellapuram	Ellapuram	Vengal, Poochiathipedu, Uthukkottai
8	Thiruvallur	Thiruvallur	Ekkadu, Kilambakkam
9	Poondi	Poondi	Pondavakkam, Pattaraiperumpudur
10	Kadambathur	Kadambathur	Perambakkam, Manavalanagar
11	Thiruvalangadu	Thiruvalangadu	Kanagammachatram
12	Tiruttani	Tiruttani	K.G.Kandigai
13	Pallipet	Pallipet	Pothaturpettai
14	R.K.Pet	R.K.Pet	C.N.Poondi

Source: District Statistical Dept -2018-19

These Storage Godowns and Ware house will use as both Agriculture and Non Agriculture products with paddy, pulses etc. Since, it has close to Chennai metro city proximity many agro godowns and warehouse is located, since major seaports in Tiruvallur and one private sea port exist in this region.

7.3 Cold storage in Tiruvallur district

There are 12 cold storage areas in the district which is very much significant to keep the commodities with large capacity of supply materials to the proximity of Chennai population and rest of the districts.

Table 25: Cold Storage areas

S.No	Name of the Cold Storage	Capacity in MT	Type of Cold Storage	Ownership
1	National dairy devt. Board Ambattur dairy Ambattur	175	Milk products	Co-op
2	Parwaz food packers 289/2B, Thiruvallur road Alamatti, redhills Chennai-52	200	Marine products	Pvt
3	Saradakripa cold storage P ltd, plot. No.34, Madhavaram Village Ambattur Taluk	5400	Multipurpose	Pvt
4	Renuka Parameswari cold storage P ltd, S.No. 766/1 Near Madhavaram Fly over Madhavaram	6050	Multipurpose	Pvt
5	Poorna Vijayasali cold storage ltd, 14, Lotus colony Ist street, Madavaram Chennai-600060	3100	Multipurpose	Pvt
6	SBP cold storage P ltd P H Road, Noombai village, Behind sindhi college Chennai-600077	2000	Multipurpose	Pvt
7	Tamil nadu coop milk marketing fed. Ltd, Ambattur dairy II Ambattur	384	Milk products	Co-op
8	Govind cold storage Pvt Ltd Ambattur Taluk Thiruvallur	4150	Multipurpose	Pvt
9	Tamil nadu coop milk marketing fed ltd, Ambattur dairy Ambattur	575	Milk products	Co-op
10	Hatsun foods Company Nallur Village, Ponneri, Thiruvallur Dt	200	Ice creams	Pvt
11	Omshakthy Cold Storage pvt ltd, 1/145, APH road, Vanagaram Chennai-102	1000	Multi- purpose	Pvt
12	Somanica foods P ltd 372, Ind. Estate Ambattur, Chennai- 58	45	Ice creams	Pvt

Source: TNAU, 2019 <http://agritech.tnau.ac.in/>

Cold Storage units in Tiruvallur District have got for different usage purpose such as Dairy Product, Agro Product, Ice creams and Multipurpose product with total capacity of 23279 MT which include the both private and co-operate sectors.

7.4 Resource Centers

There are seven resource centers available for farms sector and non-Farms;

Table 24: Research Institutions

S.No	Name and address of Institutions and Laboratories	Type of Research Field
1	Rice Research Centre, Thiruvur	Development of new rice varieties resistance
		Pest and Diseases, Providing training
		Thiruvallur District farmers regarding the all Agricultural activities.
2	State Seed Farm, Kolundaloor	Production of certified and foundation seed in Paddy and Pulses
3	Coconut Nursery, Madhavaram	Development of Coconuts seedlings i.e., Tall, Dwarfs, Tall X Dwarf.
4	Seed Processing Unit, Kolundaloor	Processing of Certified and foundation seed in Paddy and Pulses
5	Mobile Soil Testing Lab, Tiruvallur	Collection of soil samples from farmers' fields from all blocks of Tiruvallur District. Analysis of soil for macro and micro nutrients and soil-based fertilizer recommendation for raising agricultural crops.
6	Liquid Bio Fertilizer Production unit , Puzhal	Production of liquid bio fertilizer like Azospirillum Phosphobacterium and Rhizobium (Source: Agri Dept ,Trl)

Source: District Statistical Dept. -2018- 19

8 Penetration of Banking /Financial institutions

There are no unbanked villages in the district.

It has got 466 commercial bank branches including rural and semi urban branches providing various financial services.

In an effort to take banking services to the last mile, the Indian Bank, which is a Lead Bank for the Tiruvallur district, has identified in the villages for provision of banking services through BC model. The district also has a fairly good network of cooperative societies.



The district has fairly good network of public sector, commercial and commercial banks. Financial institutes participate in the government's drive towards financial inclusion to a great extent. In Tiruvallur, the number of public sector banks, private sector banks and operating in the District is 466 branches.

8.1 SHG Bank linkage

Total credit linkage through SHG's in the district for the year 2019-2020 achieved is Rs. 407.26 Crores (Target Rs.430.00 Crores) through 9008 SHG's (Target 9618SHGs) till Feb 2020 in 39 Banking Institutions with 93% achievement.

Source: Tamil Nadu State Rural Livelihood Mission, As on Feb , 2020

Financial literacy center is present in Tiruvallur. INSETI (Indian Bank Self Employment Training Institute) is an INDSETI provides training in various trades for the unemployed youth and the banks also sponsors to conduct this training in Tiruvallur.

Financial Literacy programmes are also being conducted by FLCC in the villages organized by Banks and other agencies.

Table 26: Sector wise Credit details by the branches

Items	Deposits	Advances	Credit Deposit Ratio	Sector wise Credit Details
-1	-2	-3	-4	-5
Public Sector & Private Sector Banks 39 Banks 466 Branches	25147.61	22792.89	90.64%	Total Priority Advance- 14,752.54
				Of which
				Agri – 4,789.73
				Micro Small
				Enterprises – 1789.04
				Retail trade -
				Micro credit -
				Education – 967.81
				Housing – 3687.81
				Weaker Sections Advances – 4078.53
Co. op. Bank & Others 33 Branches	857.6	917.66	107.01%	Total Priority – 321.48
				Of which
				Agri – 194.82
				Micro & Small
				Enterprises - 49.64
				Retail trade -
				Micro credit -
				Education – 0.01
				Housing – 5.13
				Weaker Sections Advances – 106.93

Source: District Statistical Dept - 2018-19

8.2 Block wise SHG key Activities**Table 27: Block wise key activities of the SHGs**

S. No	Block	Key activities
1	Ellapuram	Embroidery
2	Gummidipoondi	Embroidery
3	R K Pet	Hand & Power loom
4	Pallipet	Power loom
5	Kadambathur	Embroidery
6	Villivakkam	Plastic recycling, sanitary napkins, groundnut &chikky
7	Tiruvallur	Millets
8	Poondi	Embroidery
9	Minjur	Palm leaf products
10	Poonamallee	Handmade paper products & sanitary napkins
11	Sholavaram	Cotton bags &sanitary napkins
12	Puzhal	Readymade garments
13	Tiruttani	Power loom &embroidery
14	Thiruvalangadu	Embroidery

Source: NABARD PLP, 2018-19

The block wise SHG's and its key activities is detailed above show that SHG's have been involved in Embroidery, Handloom, Plastic recycling, readymade garments, Sanitary agents and Handicrafts products.

Table 28: Number Of Families Engaged In handicrafts

Sl. No.	Name of Handicrafts	No. of Artisans enrolled
1	Embroidery (various types)	2780
2	Gypsy Bead Jewellery	150
3	Palm leaf	750
4	Stone carving	25
5	Cane and Bamboo	22
6	Agarbathi	31

Source: District Statistical Dept - 2018-19

Key observations:

- ✚ The Horticulture department of the district is actively promoting various horticulture crops in Tiruttani, Tiruvallur, R.K.Pet, Kadambathur, Tiruvalangadu, Gummudipoondi, Sholavarm and Poondi blocks.
- ✚ The Coconut and Palm garden at Putlur, Coconut Nurseries at Madhavaram and the Coconut Crossing Centre at Pallipattu provide planting material for coconut growers for development of coconut farming.
- ✚ Tiruttani has a bio-fertilizer plant, which is supporting for the growth of horticulture in the district.
- ✚ The State Horticulture farm at Madhavaram supplies quality planting materials. Further, there are 6 Private Nurseries in the district providing seedlings for ornamental flowers and foliage plants. The Horticulture Training Centre at Madhavaram imparts training to the farmers and field level functionaries of the Department of Horticulture on the latest technologies.
- ✚ Pallipet, R.K.Pet and Thiruthani blocks have good scope to increase sericulture activities. Department of Handloom is encouraging the farmers to increase their land usage for production of cocoon.
- ✚ The district has twelve cold storages, however only 4 are used for agricultural products, while the one located at Ennore is used purely for sea food and the cold storage at Puzhal is specifically used for pig meat exporting.

Thiruvallur district is one of the fastest developing districts in Tamil Nadu in terms of Industrial Development as the district is close to Chennai. The district has 10 Industrial Estates which are developed by the Government of Tamilnadu.

Tiruvallur district has a sizeable proportion of people engaged in the handloom sector. Small and medium size industries are engaging a large proportion of workers. The growth in the secondary and tertiary sectors, i.e. the industry and service sector in the district has been faster than elsewhere in the State. This trend is accelerated by good infrastructure reinforcing district economy.

Details of existing Micro and Small Enterprises



Micro enterprises are usually a trademark of a developing country and economy, like India. They help the economy by not only creating jobs but also lowering production costs, increasing purchasing power and providing convenience. In fact, the government encourages micro enterprises, especially in low-income areas. The readymade garments is prevalent, Agro based enterprise is predominant in nature, electrical and electronic, Automobile, paper products and other industries are mainstay of the district's industrial map.

Table 29: Types of Industries & Units

TYPE OF INDUSTRY	NUMBER OF UNITS	INVESTMENT (Rs. in Lakhs)	EMPLOYMENT (Nos.)
Agro based	5760	82239.5	31793
Ready-made garments & embroidery	2211	34943.18	27108
Wood/wooden based furniture	614	784719	3148
Paper & Paper products	836	24288.96	7144
Chemical/Chemical based	1539	37218.85	12112
Rubber, Plastic & petrol based	1955	58939.13	13543
Engineering units	18375	442636.11	72545
Electrical machinery and transport equipment	2358	57535.65	18995
Repairing & servicing	2495	19680.4	10719
Others	24087	200117.35	121463.3

Source: District Industries Centre-2018- 19

In Tiruvallur majority of the industrial units have been established with work force on Agro-based, chemical, engineering, repairing, automobile and Petroleum products.

Table 30: Details of Udyog Aadhar Memorandum Registered Units

S. No.	District Name	Micro	Small	Medium	Total
1	Total Units registered under UAM	43485	3586	44	47115
2	Manufacturing Units	19788	2812	25	22625
3	Service Units	20976	3495	19	24490

Source: District Industries Centre-2018- 19

In order to promote ease of doing business for MSMEs, A one-page simple Registration form for online filing of UAM has been introduced which replaces the filing of Entrepreneur's Memorandum Part I & II.

Table 31: Industrial Estates details

S.No	Industrial Estate	Location
1	SIDCO Industrial Estate	Thirumazhisai
2	SIDCO Industrial Estate - I	Gummidipoondi
3	SIDCO Industrial Estate	Kakkalur
4	SIDCO Industrial Estate	R.K.Pet
5	SIDCO Industrial Estate	Vichoor
6	SIDCO Industrial Estate	Thirumullaivoyal
7	SIDCO Industrial Estate -II	Gummidipoondi
8	Dept. of Electrical Industrial Estate	Kakkalur
9	SIPCOT	Gummidipoondi
10	SIPCOT	Thervoykandigai

Source: District Industries Centre-2018- 19

There are 43485 Micro enterprises and 3586 Small enterprises and 44 large scale enterprises engaged in the manufacturing of various products like Leather/ Textiles/ Chemical/ engineering. Some of the economic activities undertaken by the rural artisans are manufacturing of jute, coconut shell and palm leaf based products, paper cups, leather, Rexene works etc.

9.1 Ship Building Sector

Larson & Turbo has undertaken complex mission-critical projects towards Nation Building in all strategic sectors. In the Defence sector, L&T undertakes design and development of equipment and systems as well as platforms.

L&T is proud to have been associated with the Design Engineering and Construction of India's first nuclear powered submarine, demonstrating multi-disciplinary capabilities for Engineering and Construction of complex naval platforms such as L&T's shipbuilding includes:

- Frontline Warships: Frigates, Destroyers, Corvettes
- Submarines
- Special Platforms: Landing Platform Dock
- Diving, Survey and Research Vessels
- Auxiliary Vessels: Offshore Patrol Vessels, Floating Dock
- Interceptor Boats, Fast Speed Boats etc.

9.2 Existing Clusters of Micro & Small Enterprise

The MSME Clusters that exist and being established are Auto Components, Engineering, Gate & Grill, Metal Sheet, Fabrication, Leather, Palm and Palm Products, Pharma, Plastic and Corrugated box.

Table 33: Status of the industrial clusters

S: No	Name of the Cluster	Location	Product
1	Engineering	Thiruvallur, Thirumullaivoyil	General Fabrication and Garments
2	Pharma	Indian system of Medicine	Ayurvedic products
3	Plastic	Redhills, Ayanavaram	Plastic Sacks
4	corrugated box	Ayanapakkam, Thiruvallur, Gummidipoondi	Corrugated box – waste to board
5	Handloom	Arani	Handloom Products
6	Power loom	R.K Pet, Ammaiyarkuppam, Podhaturpet, Attimanjeripet	Powerloom Product

Source: District Industries Centre, 2019

The purpose of cluster analysis is to identify those areas of the economy in which a region has comparative advantages and to develop short and long-term strategies for growing the regional economy. Developing industry clusters has become a key goal for regional economic development as clusters have been shown to strengthen competitiveness by increasing productivity, stimulating innovative new partnerships, even among competitors, and presenting opportunities for entrepreneurial activity.

9.3 Skill Gaps

The below table no 34, depicts the sectors with Greatest Incremental Human Resource Requirement by Skill Level and Time Period.

Table 34: Skill gaps between 2012 and 2017

Skill Level/ Period	2012-2017	2017-2022
Unskilled	Construction, Textiles, Tourism & Travel, Organized Retail	Construction, Textiles, Tourism & Travel, Organized Retail
Semi-skilled	Tourism & Travel, Construction, Automobile, Chemicals & Pharmaceuticals	Tourism & Travel, Construction, BFSI, Media & Entertainment
Skilled	Tourism & Travel, IT & ITES, BFSI, Chemicals & Pharmaceuticals	Tourism & Travel, IT& ITES, BFSI, Organized Retail

Source: NSDC Report, 2012-17 and 2017 -2022

9.3.1 Sectors with Greatest Incremental Human Resource Requirement by Skill

Chennai, Kancheepuram and Thiruvallur form an industrial hub at the north-east of the state are expected to account for over 24% of the incremental skilled human resource requirement in the state of Tamil Nadu. However, with the increasing industrialization of other districts such as Coimbatore, Erode, Kanniyakumari, Madurai, Tiruchirappalli and Salem, the human resource requirement across the state is expected to grow significantly over the next decade.

9.3.2 Incremental Human Resource Availability by Skill Level in shown below;

incremental human resource availability (in 000s)	Unskilled	Semi skilled	Skilled	Total
2012-17	253	11	76	340
2017-22	279	13	100	391

Source: NSDC Report , 2012-17 and 2017 -2022

Labour and Employment

Number of Persons registered and waiting for Employment are elucidated in the below table;

Table 34: Labor and Employment registered status

S. No.	Type of Employment Exchange	No. of Persons registered during the year (2018-19)			Total No. of persons Waiting on the live register as on 31/1/2020		
		Men	Women	Total	Men	Women	Total
1	Dist. Employment Office, Thiruvallur	24919	26124	51043	128629	133679	262308

Source: District Employment office, Tiruvallur, 2018-19

Totally, 51403 persons have registered themselves in the Employment Exchanges during 2018-19 and the persons still at the live register for want of employment were 262308 at the close of the current year.

9.4 Agro-based Industries

- Tiruvallur District is an cluster of Modern rice Mills in Puzhal and Redhills region where paddy from Andhra Pradesh and paddy around district came to the Redhills region it's a center of Modern rice mills in Tiruvallur district which is nearest to the Chennai city.
- The product which are from the rice mills are as Edible rice free from husk and other foreign material, rice bran oil, rice flour and rice starch.
- Husk from the paddy is used as fodder for cattle.
- Tiruvallur district is one of the largest producers of Mango where processing units will be an additional advantage to increase the economic benefits.
- Fish Processing Units are available at large numbers in Minjur Block as it is in coastal belt with two sea port in it and nearer to the Chennai city. The fish processing mainly concentrated in Shrimp, Prawns and various kinds of fishes which mainly concentrated on exporting. Number of Shrimp cultivation is located in Pazhervakadu which has high potential of employment opportunities.
- There is a need for promotion of Agro Processing based FPOs, which would integrate operations of farmers growing the horticulture crops.
- The concept of Rural Business Hubs to be revived, wherein agro-industries can tie up with farmers for production of raw materials through technology transfer and input supply as well.
- Sectoral Skill Councils for Food Processing and Agriculture need to work in unison with related Sectoral Skill Councils for improving the skill sets of rural households which in turn will help them increasing the household income and also risk mitigation through activity diversification.

The growing population and increased purchasing power at the hands of the people have fueled growth in general. The ground level disbursements for individuals, SHGs/JLGs for meeting their consumption, business and other needs are showing an increasing trend. Still large section of petty traders engaged in sale of vegetables, fruits, fancy items, clothing material, daily use consumables, and people engaged in making snacks/roadside dhabas, eateries borrow from informal sources, commission agents operating in their area/market on daily/weekly/fortnightly interest rates. Linking this section of business community with banks is a challenge and able to accomplish it.

10 Tourism center

Tourism industry is important for the benefits it brings and due to its role as a commercial activity that creates demand and growth for many more industries. Tourism not only contributes towards more economic activities but also generates more employment, revenues and plays a significant role in development.

10.1 Kudiam Cave

Gudiyam Caves are rock shelters in South India and known for prehistoric stone tools and culture. They were first identified by British geologist Robert Bruce Foote. This ancient site is situated in the Tiruvallur district near the Poondi reservoir. Archaeological evidence suggests that the caves were used by Paleolithic Man. The site has been excavated by the Archaeological Survey of India in 1963. Sixteen such shelters have been identified by the Archaeological Survey of India in Allikulli Hill ranges near Poondi.



Pazhaverkadu (Pulicat Lake)

Pulicat or **Pazhaverkadu** is a historic seashore town in Thiruvallur District. It is famous for India's second largest brackish water lake or lagoon after the Chilka Lake. The Portuguese established a trading post in Pulicat in 1502 with the help of the Vijayanagar rulers. The old lighthouse still stands at the opposite bank of the lake. The [cemetery](#) dating to 1622 has been taken under the wing of the [Archaeological Survey of India](#) and so has survived the passage of time. The grand, Dutch inscribed tombs and graves, carved with skeletons rather than the cross, have been quite well preserved.



Chinna Pallivassal Mosque at Pulicat

The Chinna Pallivasal Mosque in this town was set up in 1708 A.D. and one of the most interesting features of this small mosque is a sundial which is still in excellent condition.



Ennore Creek

The Ennore creek is a backwater located in Tiruvallur District, Tamil Nadu. The Ennore Creek is bound on the north by the Pulicat Lake and to the south by the Manali marshlands. The Arani River enters the creek's northern edge below Lake Pulicat. To the south, Kosasthalaiyar River and the surplus course of the Puzhal Lake enter the creek. The estuary at Mugatwarakuppam drains all of these waters into the Bay of Bengal.

10.2 Worship Places



Sri Veeraraghavar Temple is one among the 108 divyadesams of vaishnavas and a part of tondainaadu divyadesams. Amavasya days are believed to be auspicious for visiting this temple.

Tiruttani Murgan Temple is one among the six Padaiveedu's of Lord Muruga. ie. The 5th Padaiveedu, Thai Poosam and Panguni Uthiram festivals are very famous festivals and large number of devotees coming here at that time. Tiruttani constitutes one of the six PadaiVeedu shrines of Skanda (Lord Subramanya), and it represents the site where Subramanya stayed after destroying the demon Surapadman. Tiruttani is said to be the place where the Lord Subramanya married Valli - one of his two consorts.

Innovation & Promotional Opportunities – Farm & Non-farm Commodities

10.3 Mussel Farming

Long line and raft culture techniques are ideal for open sea farming. Mussels grown on long lines become smothered by naturally settling juvenile mussels and other fouling organisms.



Kinds of Mussel Cultivation

In these units, two types of culture method are carried out namely raft and rack methods and species such as green mussel (*Pernaviridis*) and edible Mussel (*Crassostrea sp.*) are collected naturally and cultured.

Number of Units and Material Resource:

A total of 20 Units were installed. The dimension of each rack is 5*5 m. Each unit consists of 200 string ropes with 7 spat shells for each rope with a length 1.5 cm. Also 20 units of raft cages were installed with naturally collected spat shells.

Duration Period

Naturally collected spat shells were 2-3 cm and now it has grown up to 10-12cm in a period of 9 months. Normally its culture period is 12 to 18 months for harvest.

Marketing

It fetched a price of Rs.110/Kg. After this partial harvest programme, there is demand from a shrimp hatchery, Andhra Pradesh for feed purpose. and it fetches a good price to the tune of Rs.200 to 600 per Kg at luxury hotels.

10.4 Potteries

Pottery is clay that is modelled, dried, and fired, usually with a glaze or finish, into a vessel or decorative object. Clay is a natural product dug from the earth, which has decomposed from rock within the earth's crust for millions of years.

Pottery product is the best solution to replace plastic products. There are 1213 Artisan are involved in Pottery making. There is huge scope to start a Producer group for

10.5 Embroidery

Embroidery is so much a part of our lives that we may not even notice it. However, when a shirt or skirt features fancy stitching, when a baseball cap has a stitched logo, or when a sweater is monogrammed, embroidery is the cause. Granted, this kind of embroidery is done by machine, but beautiful stitching is also possible through the age-old art of hand embroidery.

In Tiruvallur district, there are 2780 Artisans were enrolled. So, huge scope to develop and able to form Producer group and can enhance the dormant ones with refreshing required both in raw and technical support.

10.6 Palm Leaf Product

Palm leaf product is alternative solution for Plastic product eradication. The Thunder Palm Leaf which is required for making the products is got from Palm Tree which is ivory in color. These leaves are dried under sun for 2 days. Kadambathur and Gummidipoondi region is well known for Palm tree products.

There are 750 Artisans were enrolled in Tiruvallur district. There is a scope of forming a Producer group and huge scope to improvise as good finishing product.

10.7 Rendezvous to Reservoir

The Sathyamoorthy reservoir water itself is an interesting tourism attraction. The view of the clear water with the various biota's that is above and inside it is a beautiful tourism attraction. Poondi water reservoir with its sharp-curved beach is also interesting a unique tourism attraction. The scenery around the reservoir is very beautiful if managed.

Potential Commodities / Sectors For Enterprises- Non Farms

<p style="text-align: center;">Pottery</p> <ol style="list-style-type: none"> 1. 25 Pottery materials are produced by SHGs members in Pondavakkam 2. To create awareness on important of Pottery usage 3. Huge scope for Pottery 4. Scope to start PG's 	<p style="text-align: center;">Almonds leaves</p> <ol style="list-style-type: none"> 1. Alternative source for plastic items 2. Good for health 3. Open scope for almonds leaves • 4. To create awareness on important of almonds leaves
<p style="text-align: center;">Embroidery (various types)</p> <ol style="list-style-type: none"> 1. 2780 Artisans enrolled 2. Scope to refresh the work 3. Scope to start PG's 	<p style="text-align: center;">Palm leaf product</p> <ol style="list-style-type: none"> 1. 750 Artisans enrolled 2. Alternative source for Plastic item 3. Large Scope to empower the product •

11 . Scope for Skill & Jobs

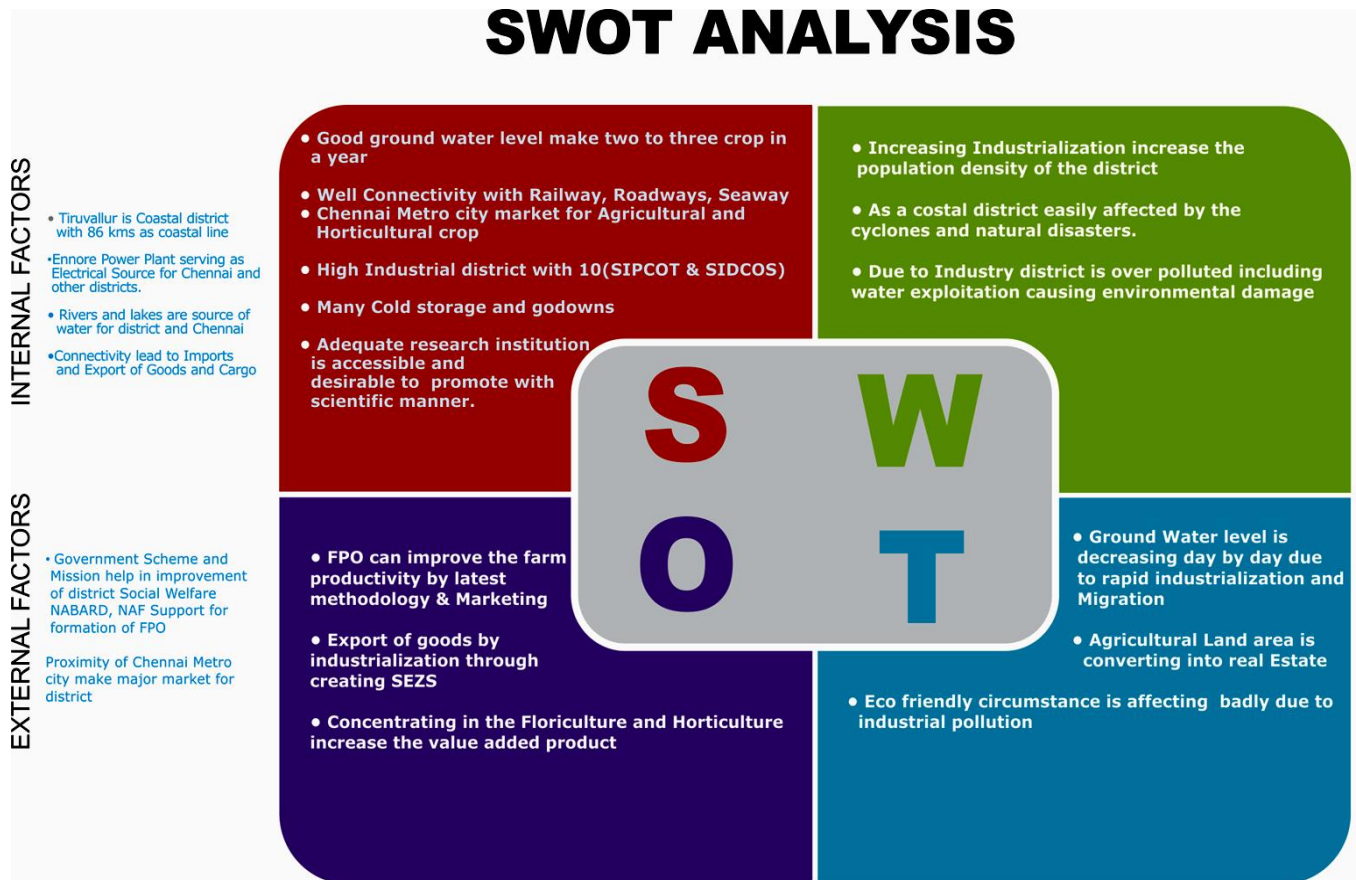
As Tiruvallur has got 10 Industrial SIPCOT both government as well as Private ones, there are huge Employment opportunities for Workers in industrial (Manufacturing and Service sectors which is scattered throughout the district), agriculture and allied activities, Readymade -Garments Units/factories, Paper products, Electrical, machinery, wood & Steel products, Minerals, Automobiles, Engineering, Petro - Chemical products and Repairing servicing etc.

Table 35: Potential service sector trades for Employment

S.No	Trades	S.No	Trades
1	Hotels and hospitality enterprises,	10	Beauty Parlors
2	Hospitals	11	Cell Phone servicing
3	Educational services	12	Repairing of Electro-medical Equipment's
4	Fitness centers	13	Auto / Two-wheeler service centers
5	Freight transport	14	Marketing consultancy
6	Interior decoration	15	Industrial consultancy
7	Industrial design and layout making	16	Entrepreneurship Development
8	Logistic centers	17	Others
9	Security services		

12 . SWOT- Analysis

SWOT ANALYSIS



1. Potential Commodities

COMMODITY PRIORITIZATION TEMPLATE						
S.No	CRITERIA	DESCRIPTION	COMMODITY			
			Jasmine	Green gram	Water melon	Mango
1	Trend in number of producers involved in the commodity	For commodities which has large number of producers.	Positive in trend	Positive in trend	Positive in trend	Positive in trend
2	Community Interest	Economic viability, Staple food, Knowledge and technology availability, Extension services, Awareness about Market availability	Over 1092.74 ha. of land are harvested with increase in cropping pattern for jasmine.	10594 ha. Green gram is irrigated twice in a year and requires low water which is comparatively in trend.	Over 793 ha of land contribution of water melon from it.	10631 ha of cultivation is in increasing trend. Mango products were produced and sold by communities, They also interested to export it products.
3	State/National Priority (Thrust from government)	State/National Government Schemes and Investments	NAF and Government horticulture dept. have been supporting in it.	One of the chosen districts for NFSM, Integrated Development of Pulses Village Scheme	Horticulture dept is making effort on hybrid varieties	Horticulture dept. providing support with subsidies and counsel for better prices.
4	Comparative advantage	Production, Favorable climatic conditions, GI type characteristics, Uniqueness emerging out of Ethnicity and culture, A prevalent cluster.	Generates impressive returns to the farmers and good employment opportunities for farm family as well as agricultural labourers especially for female workers.	Price stability ensuring fair return of produce, Assured marketing outlet and no involvement of middlemen. Control on quality of produce	Good Climatic condition and high market demand in local	Major share in state production, Major Mango cluster, High demand for Certain varieties
5	Access to Market	Ability to sell the produce at a remunerative price- Local, National & International markets.	Nearest to Chennai Metro City which is major flower market and exportable.	Steady increase in demand throughout the nation, rise in prices.	Nearest to Chennai Metro City which is major exportable	High demand for mango in local and International market and the proximity to Andhra- is also high.
6	Opportunity for Value Chain Interventions	Productivity	Jasmine Perfumes and Jasmine herbal tea and exporting opportunities.	Enhancement, promotion of summer pulses, delayed marketing facilities, Pulses processing units	Jam, Juice, Jelly and wine are the value interventions that can have positive advantages	Pulp, juice, Concentrate, Pickle, Jam, Jelly, Candy & dehydrated slices will have great market Opportunities.

S. NO	Criteria	Food processing	Fish Processing	Packaging & Carton	Service industry
1.	State/National Priority	Investments made in infrastructure	Investments made in infrastructure	Investments made in infrastructure	Investments made in infrastructure
2.	Approx: Number of people/Units involved	1797	19489	14000	15866
3.	Potential for job creation	2000	1000	4500	6000
4.	Comparative advantage	Horticultural zone. Highest number of lady finger, Brinjal etc., Possible in Value addition in agro industries.	Both Marine and Inland fishing is available in abundance.	Many engineering and Warehouse which export from Sea port	Growth of industry and residential townships and connectivity through NH.
5.	Trend in private investment	Increasing, no food processing industries and private investments	Shrimp cultivation is increasing.	Ban in plastic lead to eco-friendly package products.	Increasing in infrastructure development
6.	Opportunity for Value Chain Interventions	Viable opportunities for value chain interventions as it is related to agricultural, horticultural.	Mussel cultivation and modern fishing processing	Palm leaf Plate, Natural and Hygienic scope to move with huge production	Opportunity for value chain interventions.

14. Conclusion

Tiruvallur is an agrarian district. Though it has a few irrigated pockets majority of the area under cultivation is rain fed. The rainfall pattern of the district is erratic. During failure of monsoon producers generally skip the crop or go for cultivation of less water utilizing crops like Cumbu and pulses. Majority of the landholdings are owned by marginal farmers.

The Major commodities prioritized through the study are based on acreage, producers, trends and state priority. The commodities are

1. Pulses (Green gram & Red gram)
2. Horticulture (Water melon, Greens)
3. Mango
4. Vegetables
5. Floriculture,
6. Groundnut.

Identified Sectors

The following are the sub-sectors identified through DDS:

1. Food processing
2. Fish Processing /Cold storage,
3. Service Industry,
4. Packaging eco -plate,
5. General Engineering.

Tiruvallur district is unique in having a prevailing business ecosystem within the district and has a great potential for agribusiness and export of agricultural products. The establishment of industrial complexes, special economic zones and investments contribute to the development of service sectors and employment opportunities in the District.

Annexure - I



Key Stakeholders /line departments' orientation at District level in the Presence of District Collector and Chief Executive Officer (CEO, TNRTP)

Annexure - 2



Key Stake holders / line departments' orientation at Block level



(Ja



Sholavaram Block (Jasmine Cultivation)



Minjur Block ("Crossandra" - Kanagambaram) cultivation)

Annexure - 3



Minjur Block- Mooringa Cultivation



Pottery production – Sholavaram Block, Pondavakkam Panchayat

Annexure - 4



Gummidipoondi Block – M-Sand- utilization Production of Platform stones



Kadambathur block – Handloom Weaving



Kadambathur block – Handloom Weaving

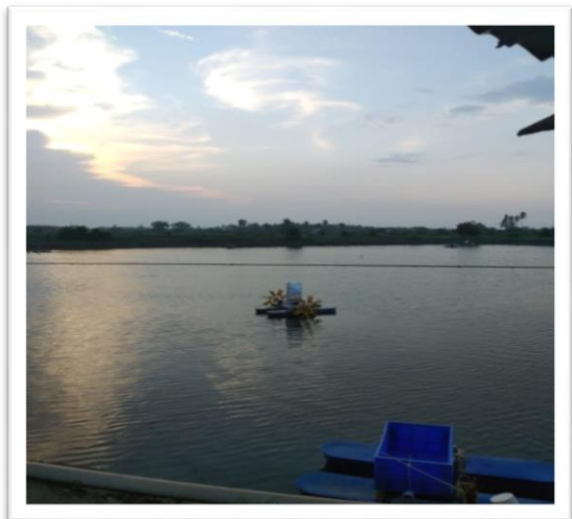
Annexure - 5



Shrimp Production, Goomidipoondi Dry sea salted fish at Kadambathur



Shrimp pond cultivation at Gummidipoondi



Shrimp pond cultivation at Gummidipoondi

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List of Officials Contributed

S.No	Name	Designation & Dept.
1	Tmt. Mageswari Ravikumar, I.A.S.	District Chairman & Collector
2	Thiru. Muthuswami.V	DRO
3	Tmt.G.Loganayagi	PD- DRDA
4	Thiru.V. Jayakumar	PD- TNSRLM
5	Thiru.V.Manivannan.	General Manager – DIC
6	Tmt.Shanthi Joshua	AGM-NABARD
7	Thiru.HebsurRehman	LDM-Indian Bank
8	Tmt.GowriShankar	TAHDCO- Manager
9	Thiru. Ranganathan	DIO – NIC
10	Thiru.Pandiyar	JD (A) (In charge)- Agri.
11	Thiru.Rajendirar	Doctor / Joint Director – Animal Husbandry
12	Thiru.	AD- Sericulture
13	Thiru. Sridhar	AD- Panchayats
14	Thiru. Rajasekar	Director- Statistics
15	Tmt.Kalaiselvi	DADWO- SC/ST Dept.
16	Tmt. Ramamani	PA(NMP)
17	G.Ramanan	Deputy Director-Agriculture
18	Tmt. Jebakumari	Deputy Director – Horticulture
19	Thiru.Srinivasan	District Employment officer
20	Tmt.Parvathy	Deputy Tahsildar - Social security schemes
21	ThiruR.Balaji	DDAWO
22	Thiru.Prasadh	JD/AD - Agriculture Marketing
23	Thiru. AbdulBari	BC & Minorities -Welfare officer Dpty.Collector
24	Thiru.Suresh	Deputy Director- Agriculture- State Schemes.
25	Thiru. P.Shanthi	Professor & Prog.Coordinator-KVK
26	Thiru.Sivakumar.G	Tourism Officer
27	Thiru.Chandrasekar	DSMS- TNSRLM
28	Thiru.Swaminathan	Gummidipoondi (BDO)
29	Thiru.Sivakumar	Minjur (BDO)
30	Thiru. Balasubramanian	Kadambathur (BDO)
31	Thiru. Ravi.	Sholavaram (BDO)
32	Block Mission Management Unit	Gummidipoondi, Kadambathur, Minjur, Sholavaram
33	Representatives /Entrepreneurs from Block Village Panchayats	Gummidipoondi, Kadambathur, Minjur, Sholavaram
34	Thiru. C. Magesh, MSW,BBA	Rise & Raise – Project Consultant

DDS preparation:

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Tiruvallur District.
- 2. Thiru. P.VASANTHA KUMAR, B.Sc, MSW, PGDHR**
District Executive Officer & Team members
Tamil Nadu Rural Transformation Project
- 3. Thiru. C. Magesh, BBA,MSW**
Rise & Raise – Project Consultant
Tiruvallur District