

## CHAPTER – III

### THE PROFILE OF THE STUDY AREA

#### History of Thiruvannamalai

Thiruvannamalai is one of the most acclaimed places in Tamil Nadu. In ancient times, the term "Annamalai" meant an inaccessible mountain. The word "Thiru" was prefixed to signify its greatness, and coupled with the two terms, it is called Thiruvannamalai. The temple town of Thiruvannamalai is one of the most ancient heritage sites of India and is a centre of the Saiva religion. The Arunachala hill and its environs have been held in great regard by the Tamils for centuries. The temple is grand in conception and architecture and is rich in tradition, history and festivals. The main Deepam festival attracts devotees from far and wide throughout South India. It has historic places besides Thiruvannamalai, Arni, Vandavasi, Devigapuram connected to East India and French companies. In the late Chola period this district was ruled by the Cholan of Sambuvarayar having Padavedu near Arni as headquarters. We can now find the fort and note along with a Shiva temple namely Kailasanathar in Arni town.

Thiruvannamalai is one of the northern districts of Tamil Nadu with Vellore, part of Chengalpattu and South Arcot districts as northern, southern and western boundaries. This district comprises Thiruvannamalai, Chengam, Polur, Arni, Cheyyar and Vandavasi taluks. It came into existence of 30<sup>th</sup> September 1989 after the bifurcation of North Arcot district. The district lies between 11.55° and 13.15° North latitude and 78.20° to 79.50° East

longitudes. It is mostly comprised of plain lands except for the Eastern Ghats in the north-western part of the district and small hills in Polur and Chengam taluks. Palar, Cheyyar and Pennaiyar are the rivers running through this district. They are seasonal in nature and there is no perennial river in the district.<sup>1</sup> This chapter presents an overview of historical, physical and economic facets of the Thiruvannamalai district and places it in an appropriate context in relation to human development.

In the Sangam age the region was part of Aruva Nadu. Later it became part of Thondai Mandalam. It has passed through the hands of various rulers like Pallava, Chola, Rashtrakuta, Vijayanagara, Maratha, Nawabs, French and British. During Chola dynasty this district was ruled by Sambuvarayas with Padavedu near Arni as head quarters. They were known for quick, efficient and able administration. Originally this district was part of North Arcot, which got its name as it was carved out of northern part of Subah of Arcot lying north of Palar river. During 1901-11 North Arcot was bifurcated and new Chittoor district (now in Andhra Pradesh) was formed. After many changes there were four revenue divisions with thirteen taluks during 1971. In 1989 the present Thiruvannamalai district was formed with Cheyyar and Thiruvannamalai revenue divisions with Thiruvannamalai as the district capital.

The name 'Thiruvannamalai' instantaneously brings to mind the picture of Karthigai Deepam to many, as this festival is well known throughout Southern India. Every year lakhs of devotees visit this district during the festival. Among the five 'Panchalinga Sivasthalams', 'Agnilingam'

is present in Thiruvannamalai. According to the religious story Lord Siva took the form of 'Jyothi' (light) here to solve the dispute between Lord Brahma and Lord Vishnu. It is one of the sthalams (holy place) quoted in various Puranas. Girivalam, meaning going around the Annamalai Hill once in every month during Pournami (full moon day), is very famous in this district. Due to the religious importance of Annamalai temple in Thiruvannamalai, religious tourism has been one of the major income sources for the district.

The total geographical area of the district is 6191 sq. km. (ranks eleventh among the districts) comprising the Revenue Divisions of Thiruvannamalai and Cheyyar. The district has six taluks, eighteen blocks including tribal block of Jawadhu Hills and 860 villages. One sixth area of the district is covered by reserve forest and hills which are the parts of Eastern Ghats. The Javadis are the loftiest mountains of the region. They cover the north-western portion of Chengam taluk and the western part of Polur taluk. The general elevation of Jawadhu Hills is 2500 ft. with peaks rising upto 4200 ft. in some parts. Other important peaks of the district are Thiruvannamalai (2668 ft.) and Kalasagiri (2743 ft.). The general slope of the region is from west to east.

The soil is mostly of red ferruginous variety, both sandy and loamy with black clay. Black soil is mostly found in the neighbourhood of the rivers of Palar, Pennaiyar and Cheyyar. Red series of sand is predominant in Thiruvannamalai and Vandavasi taluk. Pirrohotite is said to be available in Polur. Black and multi-coloured marvel stones are available in plenty in the

regions of Chengam and Vandavasi. These were made use of by the Sambuvarayas in the past, exhibiting their architectural skills.

The general climate of the district is tropical. The district receives rainfall from North East and South West monsoons. North East monsoon is somewhat stronger except in the southern taluks of Cheyyar and Vandavasi. The average rainfall during 1995-2004 in this district was 1040 mm. Palar, Cheyyar and Pennaiyar are the rivers running through this district. At Sathanur, about 30 km west of Thiruvannamalai, a dam has been constructed across Pennaiyar river. About 21000 hectares are irrigated through 106 channels from these three rivers. There are about 1900 irrigation tanks in the district. It is a well known fact that employment, income and poverty are interrelated and they have significant influence over human development. So analyzing changes pertaining to these aspects is very important to understand what is happening regarding human development. The serious development issue India (and Tamil Nadu) is facing that the decline in share of the primary sector in national income is not being accompanied by a significant shift in the share of primary sector employment to secondary and tertiary sectors. The other specific development pattern is tertiary sector taking over secondary sector in terms of growth rate and total contribution. This being the general trend this chapter undertakes a detailed analysis of the employment, income and poverty situation in the district and structural changes which had taken place in the recent past.<sup>2</sup> Further as a major section of the population of Thiruvannamalai is depending on

agriculture, a detailed analysis is undertaken to understand the sectoral situation.

### **Size of the workforce and work participation rates in Thiruvannamalai**

The working population in Thiruvannamalai was 12.97 lakhs in 2011, an increase of approximately 2.33 lakhs over 10.64 lakhs in 2001. It is observed that the growth of working population (14%) was considerably higher than that of overall population growth (7%) in the same period. So the Work Participation Rate (WPR) also increased from 48.70 to 49.40 percent during the same period. The increase in WPR was witnessed both in rural and urban areas. This is significant because there was a slight decline in the WPR between 2001 and 2011. But the increase in total workers between 2001 and 2011 was mainly due to phenomenal increase in marginal workers.

In fact, the number of main workers had come down by 52490 and this was particularly so in the case of rural areas. This indicates high degree of casualization of work force in rural areas and this could have adverse influence on income and poverty and so on human development. This trend is in the opposite direction to what happened between 2001 and 2011. Between 2001 and 2011 the proportion of marginal workers came down.

**Table 3.1: Total Workers and Non Workers in Thiruvannamalai District, 1991 to 2011**

Category	Total Workers			Total			Rural			Urban		
	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011
	1000s			%			%			%		
<b>Workers</b>	932.4	1065	1297.6	45.64	48.70	49.40	47.79	51.80	55.86	29.72	34.94	39.62
Main	882.4	823	924.6	43.19	37.96	35.20	45.07	39.59	42.20	29.27	30.73	33.47
Marginal	50	234.9	386.4	2.45	10.74	14.71	2.72	12.21	14.05	0.45	4.21	8.24
<b>Non Workers</b>	1111	1121	1148	54.36	51.29	43.70	52.21	48.20	51.38	70.28	65.06	71.20
<b>Population</b>	2043	2186	2627	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Source:** Census of India, Directorate of Census operation, Govt. of India.

The Work Participation Rate (WPR) in rural areas was significantly more than that of urban areas by 16.86 per cent in 2011. Though rate of increase in WPR of females was better than that of males in both rural and urban areas, still male WPR remained higher than that of females. The economic significance of improvement in female WPR was not much as it was in marginal workers category this improvement had happened.

It is observed from the table that the percentage shares of agricultural labourers as well as cultivators to total workers and marginally decreased in the year 2011 than 2001. But still their share in main workers was more than 70 per cent indicating that agriculture still remained as the prime livelihood in the district.

**Table 3.2: WPR and Number of Workers in Thiruvannamalai**

Category	WPR (%)			Workers (in lakhs)		
	2001	2011	Change	2001	2011	Change
<b>Rural</b>						
Male	58.79	63.89	5.10	5.26	7.08	1.82
Female	44.75	50.85	6.10	3.98	5.51	1.53
Persons	51.80	56.70	4.90	9.25	11.23	1.98
<b>Urban</b>						
Male	53.24	58.54	5.30	1.06	2.27	1.21
Female	16.68	22.00	5.32	0.33	0.89	0.56
Persons	34.94	41.14	6.20	1.40	2.38	0.98
<b>Total</b>						
Male	57.78	62.73	4.95	6.33	8.89	2.56
Female	39.59	44.40	4.81	4.32	6.30	1.98
Persons	48.71	53.21	4.50	10.64	12.50	1.86
Tamilnadu	44.67	48.32	3.65	278	316	38.00
India	39.13	42.12	3.00	4025.12	4378.67	353.55

**Source:** Census of India, Directorate of Census operation, Govt. of India.

Though the per cent share of cultivators in Thiruvannamalai had decreased marginally, it was still much higher than that of the state. On the contrary, the other workers category witnessed increase in number as well as in percentage share of main workers. But still its per cent share of total workers was much lower than of the state.

The number of female cultivators had increased significantly while the number of male farmers had declined significantly, indicating the trend towards the feminization of agriculture profession. This may be due to high level of migration of male cultivators to urban areas outside the district for livelihood.

**Table 3.3: Industrial Classification of Workers in Thiruvannamalai**

Category	Sex	Thiruvannamalai, 2001		Thiruvannamalai, 2011		Tamil Nadu, 2001		Tamil Nadu 2011	
		Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
Cultivators	M	226221	35.73	265321	37.10	3262489	18.02	3604219	15.70
	F	119215	27.62	149410	30.90	1853550	18.96	2156831	20.53
	P	345436	32.44	414731	34.56	5116039	18.35	5761050	17.20
Agricultural Labour	M	179456	28.34	182548	25.50	4256360	23.52	4385672	19.10
	F	244118	56.56	262314	54.20	4381270	44.81	4409726	42.00
	P	423574	39.78	444862	37.10	8637630	31.00	8795398	26.25
HHI & Other Workers	M	227489	35.93	267984	37.43	10581548	58.46	15019867	65.28
	F	68284	15.82	72319	15.00	3543065	36.24	3934097	37.46
	P	295773	27.78	340303	28.40	14124613	50.67	18953964	56.56
Total	M	633166	100.00	715853	100.00	18100397	100.00	23009758	100.00
	F	431617	100.00	484043	100.00	9777885	100.00	10500654	100.00
	P	1064783	100.00	1199896	100.00	27878282	100.00	33510412	100.00

**Source:** Census of India, Directorate of Census operation, Govt. of India.

**WPR:** Work Participation Rate

**HHI:** Household Industry Workers

Peculiarly, most of the increase in HHI & Other Workers was through increase in male workers and in fact there was decline in actual number of female workers in this category. It is known that education is one of the main instruments for getting employment in this category. That being the case, significant decline in female per cent share could be due to their lack of education entitlement. As there is no specific data on unemployment and under employment so they are not discussed here.

### **Block-wise Work Participation Rate (WPR)**

It is observed that WPR had increased during 1991-2001 in most of the blocks in the district and it had slightly declined in Thiruvannamalai block. The increase in WPR was very significant in Thandrampet (18%), Chengam and Cheyyar. The highest WPR was observed in the block of Thandrampet in 2001. On the other hand, the lowest WPR was observed in the block of Thiruvannamalai. The trend towards casualisation of workforce found at the district level was also found in most of the blocks except



Thandrampet. The highest and the lowest percentages of main workers to total workers in 2001 were observed in the blocks of Thandrampet (97.68%) and West Arni (77.02%), respectively. Male WPR was comparatively higher than the female WPR in the district and the gap had narrowed between 1991 and 2001. There had been a slight increase in male WPR between 1991 and 2001 in most of the blocks except in Thiruvannamalai where it had declined by 7.65 per cent. The increase in female WPR was witnessed in most of the blocks except Vandavasi and it was remarkable in Pernamallur, Kilpennathur and Chengam. The lowest female WPR was witnessed in Thiruvannamalai block. Further, the share of main workers to total workers had declined for both the sexes. But the change in the share of main workers to total workers was comparatively higher in case of females than the males in most of the blocks. So it may be concluded that the casualization of work force in case females was more than that of males.<sup>3</sup>

The industrial classification of main workers in different blocks exhibits that percentage share of agricultural labourers was comparatively higher than that of cultivators. It is further observed from the same table that percentage of cultivators to total workers had declined in all the blocks except in the block of Vandavasi during 1991-2001. The rate of decline was much higher in the block of Vandavasi during 1991-2001. The rate of decline was much higher in the block of Thandrampet. The rate of decrease in cultivators as well as agricultural labourers in the block of Thandrampet was higher than any other block. In this block, the shifting to the other workers category from the cultivators as well as agricultural labourers was very high. Data need to be verified to validate this inference. In some of the blocks,

share of agricultural labourers in total main workers had increased during 1991-2001.

### **Registration and Placement in Employment Exchange**

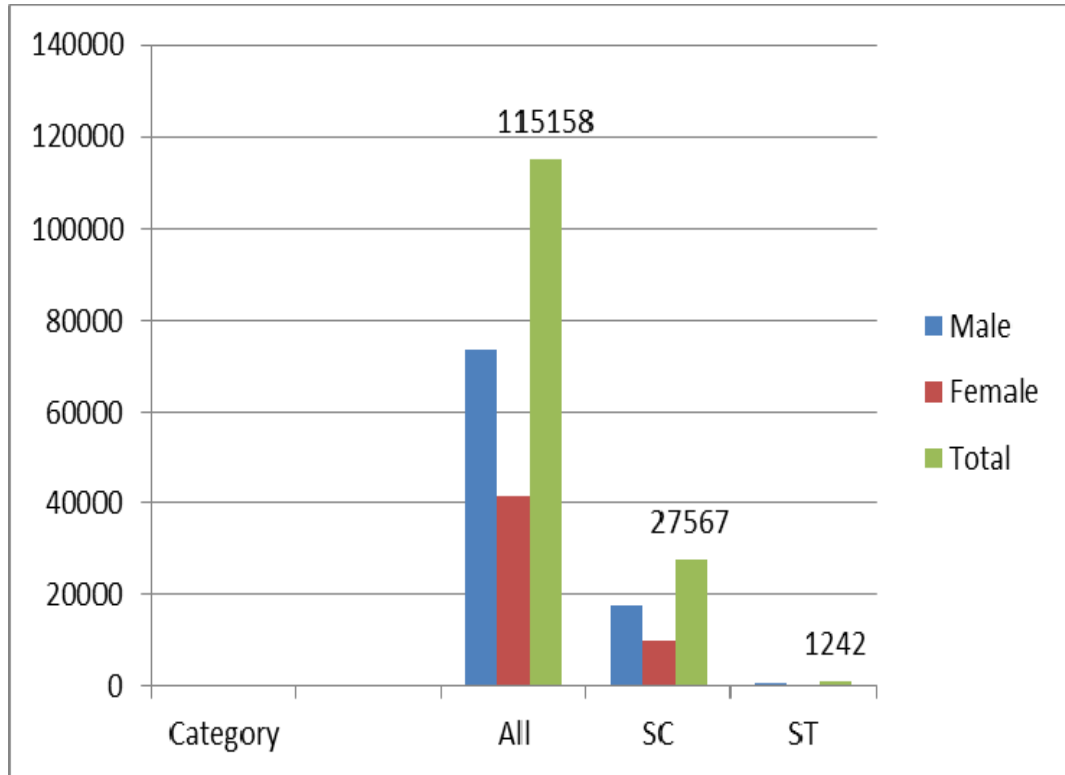
Educated unemployed persons are on the increase in the district, partly due to the education system for not adequately catering to the actual demand in the job market and partly due to lack of opportunities. Thus it can be seen from the table that considerable candidates had registered in the five employment exchanges in the district. Males outnumber females by a large margin as the inequality in higher education can be expected to reflect here. Social group wise analysis shows that while SC social group's share was closer to that of its share in population. ST social groups share was very poor (just 1% against 3.33%). Between the year 1998 to 2004, 5170 candidates were placed through the employment exchanges in various jobs.

**Table 3.4: Details of Registration in Employment Exchange, 2011**

Category	Male	Female	Total	Male	Female	Share In Total
	Number			%		%
All	73566	41592	115158	63.9	36.1	100
SC	17511	9756	27567	63.5	36.5	24
ST	908	334	1242	73.0	27.0	1

**Source:** District Employment Office, Thiruvannamalai

**Figure 3.1: Details of Registration in Employment Exchange, 2011**



### **Child Labour**

Child labour is a result of various socio economic factors. While poverty pushes the families to send their children as labourers, feudalistic attitude in the society gives a congenial environment for the same. Household survey in Thiruvannamalai, 2011, indicated that three major causes for out of school children were earning compulsion (29%), migration (25%) and household work (20%). All these three causes are directly related to child labour.

Tamil Nadu exhibits that there were 1427 children working in this district as child labours among which 795 were boys and 632 were girls. There could be a lot of unreported cases of child labour particularly those involved in household work.<sup>4</sup>

The largest number of child labourers was observed in Arni whereas it was the lowest in the area of Vandavasi. Among all the Panchayat Unions, the number of child labourers was the highest in Pudupalayam (225). There were more number of child labourers also in the Panchayat Unions of Arni, West Arni, Chengam and Jawadhu Hills.<sup>5</sup> Lower number of child labourers was found in the Panchayat Unions of Thurinjapuram, Anakkavur and Vembakkam. Among the four Town Panchayats, Pernamallur was found to have the highest number of child labourers.<sup>6</sup> The occupation of child labourers varied across the blocks and it included many occupations like engagement in shops, cattle grazing, biscuit making and weaving.

Household survey, 2011, indicated that there were 1275 child labourers in Thiruvannamalai and gave very different results at block level. The survey indicated that major number of child labourers was present in Jawadhu Hills (32%), Thiruvannamalai (13%) and Chengam (8.5%). Taking into account the considerable level of underreporting, these data sets indicate that child labour issue needs targeted action in the district.<sup>7</sup>

**Table 3.5: Distribution of Child Labour in the District of Thiruvannamalai, 2011**

Administrative Unit	Location	Gender		Total
		Boys	Girls	
<b>Municipality</b>	Arni	47	22	69
	Thiruvannamalai	39	9	48
	Vandavasi	4	3	7
<b>Panchayat Union</b>	Anakkavur	10	1	11
	Arni	106	91	197
	West Arni	89	80	169
	Chengam	77	55	132
	Cheyyar	17	25	42
	Jawadhu Hills	58	42	100
	Kilpennathur	16	25	41
	Polur	17	18	35
	Pudupalayam	106	119	225
	Thandrampet	23	19	42
	Thellar	21	34	55
	Thiruvannamalai	74	21	95
	Thurinjapuram	6	4	10
	Vembakkam	13	3	16
	Vandavasi	33	15	48
<b>Town Panchayat</b>	Chetpet	5	1	6
	Kalampur	2	2	4
	Kannamangalam	14	15	29
	Kilpennathur	1	1	2
	Pernamallur	17	27	44
<b>Thiruvannamalai District Total</b>		<b>795</b>	<b>632</b>	<b>1427</b>

**Source:** 1) District Statistical Handbook of Thiruvannamalai, 2011  
2) Dept. of Economics and Statistics, District Collectorate, Thiruvannamalai District

The survey results for incidence of child labour in the district of Thiruvannamalai during 2010-11 show that there are 1436 child labours in this district within the age group of 5 to 14 years. The percentage share of child labour of this district to the state was 2.04 which was lower than the

adjoining districts like Dharmapuri (14.39%) and Salem (11.30%). The majority of the child labours belonged to the age group of 9-14 years. Household survey in 2005 indicated that there were 1275 child labour in the district with the majority of them hailing from the blocks Jawadhu Hills (410), Thiruvannamalai (166) and Chengam (108). Indus project, an exclusive project to address this serious social issue was initiated recently which aims at bringing back the child labourers into the education system through Transition education centres (TEC). Under this Project 32 TECs were opened in the district.<sup>8</sup>

**Table 3.6: Incidence of Child Labour in Thiruvannamalai District, 2011**

	<b>5 to 8 years</b>	<b>9 to 14 years</b>	<b>Total</b>	<b>Percentage to State total</b>
Thiruvannamalai	62	1374	1436	2.04
Tamil Nadu	7700	62644	70344	100.00

**Source:** Directorate of Economics and Statistics, Govt. of Tamil Nadu, Chennai-18.

### **Income**

The table below indicates that the district Net Domestic Product at constant prices had grown at a lower rate than that of the state between 1993-94 and 2001-02. So its contribution to the state had marginally come down in the same period. Considering that the population and number of workers had grown approximately by 7 and 14 per cent points respectively, it is cause for serious concern. The growth of per capita income is bound to be lower than that of the NDP which is reflected in the **table 3.8**. Further it can be seen that the per capita income in the district of Thiruvannamalai was lower than that of the state by 58 per cent. Over the years the gap between

the district and the state in terms of per capita income, though fluctuated, had more or less above 50 per cent.

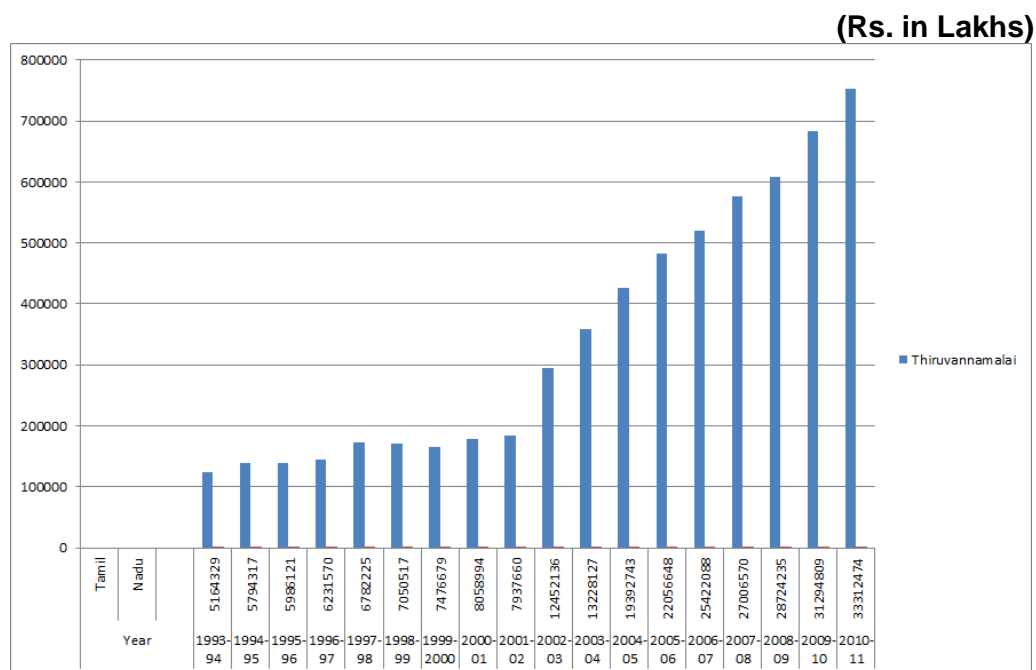
**Table 3.7: Net Domestic Product at Constant (1993-94) Prices**

(Rs. In Lakhs)

Year	Tamil Nadu	Thiruvannamalai	
		Total	Share of State Net Domestic Product (%)
1993-94	5164329	124121	2.40
1994-95	5794317	139480	2.41
1995-96	5986121	138963	2.32
1996-97	6231570	145285	2.33
1997-98	6782225	172074	2.54
1998-99	7050517	170894	2.42
1999-2000	7476679	165876	2.22
2000-01	8058994	178038	2.21
2001-02	7937660	184144	2.32
2002-03	12452136	295342	2.37
2003-04	13228127	358986	2.71
2004-05	19392743	425308	2.19
2005-06	22056648	482097	2.18
2006-07	25422088	520917	2.04
2007-08	27006570	575899	2.13
2008-09	28724235	608061	2.12
2009-10	31294809	684167	2.20
2010-11	33312474	752986	2.26

**Source:** 1) Dept. of Economics and Statistics District Collectorate, Thiruvannamalai District  
2) Directorate of Economics and Statistics, Govt. of Tamil Nadu, Chennai-18.

**Figure 3.2: Net Domestic Product at Constant (1993-94) Prices**



**Table 3.8: Per-Capita Net Domestic Product at Constant (1993-94) Prices**

(in Rs.)

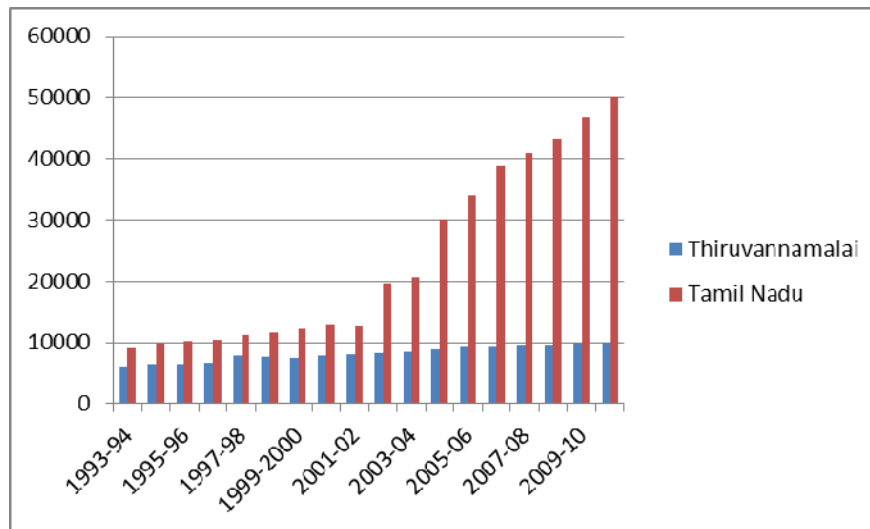
Year	Thiruvannamalai	Tamil Nadu
1993-94	5885	8955
1994-95	6537	9932
1995-96	6441	10147
1996-97	6662	10451
1997-98	7811	11260
1998-99	7682	11592
1999-2000	7389	12181
2000-01	7862	13017
2001-02	8067	12717
2002-03	8296	19662
2003-04	8534	20707
2004-05	8816	30105
2005-06	9174	33968
2006-07	9309	38851
2007-08	9584	40969
2008-09	9624	43269
2009-10	9872	46823
2010-11	9986	50275

**Source:** 1) Dept. of Economics and Statistics District Collectorate, Thiruvannamalai District  
 2) Directorate of Economics and Statistics, Govt. of Tamil Nadu, Chennai-18.



**Figure 3.3: Per-Capita Net Domestic Product at Constant (1993-94) Prices**

(in Rs.)



As more than 70 per cent of work force on agriculture, analyzing the changes in wage over years would help in understanding the income situation of major section of families. The comparison is made with neighbouring districts like Vellore, Dharmapuri and Salem as they are more comparable with Thiruvannamalai than other districts. Comparison with Coimbatore is made as it is considered to indicate potential which the district can aim for. Regarding transplanting and weeding only women labour is considered. Among the various types of agricultural activities, the district had kept pace with the neighbouring districts in the case of reaping/harvesting and other agricultural works. But regarding the predominant agricultural activities namely ploughing, sowing, plucking seedlings, transplanting and weeding, the district was far behind than other neighbouring districts. The difference was very high with respect to Coimbatore district. But even with the neighbouring districts the difference is quite considerable. Poor growth of

wages indicates inadequate productivity, stagnation or decline in production, inadequate alternative employment opportunities and inadequate mobility of labour. This inference goes well with the findings of analysis of employment situation in the district.

**Table 3.9: Percentage Increase of Wages for Difference Categories, 2010-11**

(2001-02 as base year)

District	Ploughmen	Sowers & Pluckers of Seedlings		Transplanters & Weeders	Reapers & Hardvesters		Other Agricultural Labourers	
		Men	Women	Women	Men	Women	Men	Women
<b>Change in wages</b>								
Base Period Wages	21.51	21.62	14.06	13.29	25.55	17.53	26.61	15.03
Thiruvannamalai	56.05	46.50	25.05	23.85	67.22	42.31	71.85	39.06
<b>Percentage Change in wages</b>								
Thiruvannamalai	261	215	178	179	263	241	270	260
Vellore	338	214	203	185	208	199	201	185
Dharmapuri	453	253	225	232	211	188	243	210
Salem	558	278	255	267	263	241	270	260
Coimbatore	684	316	277	282	280	229	258	240

**Source:** (1) Department of Economics and Statistics, Govt. of Tamil Nadu, Chennai-18

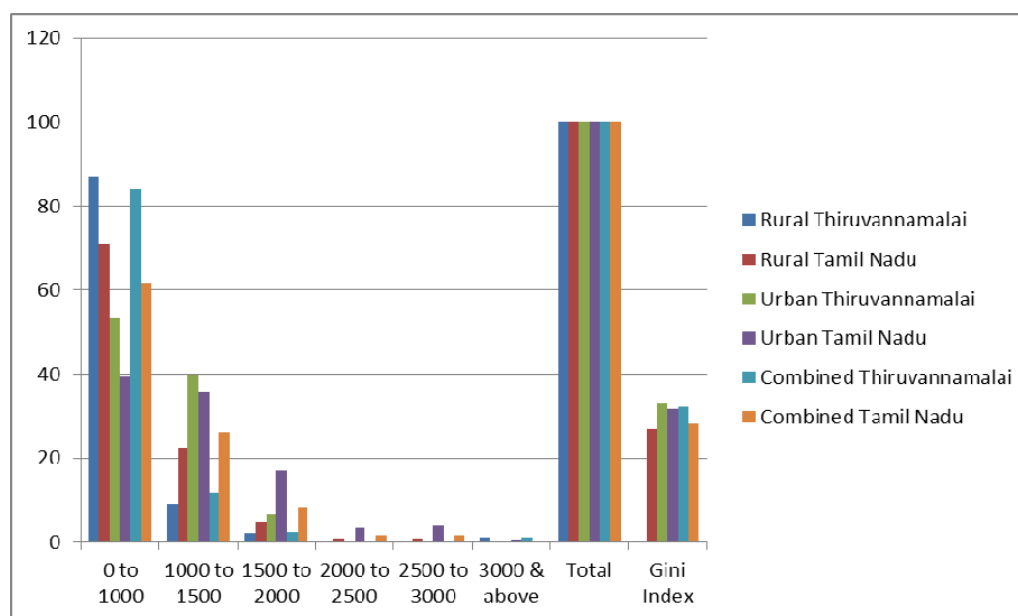
Consumption expenditure is highly related to income and in many cases it is a better indicator than income to understand the well being of the population. As it is known that averages like per capita income will not show the inequality within the district, population falling under various levels of monthly per capita expenditure is analyzed below.

**Table 3.10: Monthly per Capita Expenditure in Rural and Urban Areas in Tamil Nadu and Thiruvannamalai District, 2010-11**

Monthly Per Capita Expenditure	Rural		Urban		Combined	
	Thiruvannamalai	Tamil Nadu	Thiruvannamalai	Tamil Nadu	Thiruvannamalai	Tamil Nadu
0 to 1000	87.04	70.82	53.36	39.43	84.03	61.76
1000 to 1500	9.18	22.62	39.94	35.58	11.93	26.36
1500 to 2000	2.07	4.83	6.68	17.13	2.48	8.38
2000 to 2500	0.31	0.85	0.00	3.49	0.28	1.61
2500 to 3000	0.18	0.65	0.02	3.95	0.17	1.60
3000 & above	1.21	0.24	0.00	0.42	1.11	0.30
Total	100.00	100.00	100.00	100.00	100.00	100.00
Gini Index		27.00	33.10	31.7	32.17	28.32

**Source:** Dept. of Economics and Statistics, Govt. of Tamil Nadu, Chennai-18.

**Figure 3.4: Monthly per Capita Expenditure in Rural and Urban Areas in Tamil Nadu and Thiruvannamalai District, 2010-11**



It is found that inequality in Thiruvannamalai was much more than that of Tamil Nadu. This was the case both in rural and urban areas, particularly so in urban areas. The Gini Index also reflects the same. So, low per capita income along with higher levels of inequality indicates that poverty

would be higher in this district and so the negative consequences on human development.

The table on sector-wise contribution to total NDP at the constant prices reveals that the tertiary sector has become the primary vehicle of growth for the district from 1995-96 onwards. By 2002-03 more than half of the income of the district was from tertiary sector. But the contribution of primary sector to the total Net Domestic Product had decreased between 1993-94 and 2003-03 in the district as well as in Tamil Nadu. But the decline had been very drastic (23.71%) in the district when compared to that of the state (11.49). It is a surprising fact that though the inhabitants of the district see Thiruvannamalai as a district depending predominantly on agriculture, it is not so in terms of income. It was observed earlier that by 2001 more than 70 percent of the workers were engaged in agriculture either as cultivator or agricultural labourer in the district. This in combination with drastic decline in the share of primary sector to district NDP indicates that the per capita income of the more than 70 percent of the work force had come down either absolutely (at constant prices) or both absolutely and relatively when compared their counterpart in other sectors. This would have serious consequences on poverty and well being of the families depending on them and on human development. Reasons for this phenomenon need to be explored in depth to bring about policy changes and design interventions.<sup>9</sup> Urgent and large scale measures with necessary policy changes are needed to address this serious issue.

The contribution of the secondary sector had increased by 6.55 percent in the district in the same period while that of the state had declined by 2.35 percent. The contribution of tertiary sector to the NDP had increased over the years both in the district and in the state and they were more or less on par in this respect. Detailed analysis is needed to understand which are the entities involved in this sector and who are the beneficiaries of this growth. It is also to be explored that how much religious tourism in and around Thiruvannamalai town contributes for that. Then we can understand whether the whole district is benefited from this growth or it is restricted to only few pockets. In another way it can be explored how this growth engine can be made to benefit wider section of the population.

**Table 3.11: Sector-Wise Contribution to Total Net Domestic Product at 2001-02 Prices**

(in %)

Year	Primary		Secondary		Tertiary	
	Thiruvannamalai	Tamil Nadu	Thiruvannamalai	Tamil Nadu	Thiruvannamalai	Tamil Nadu
2001-02	44.67	28.14	19.25	34.16	40.12	43.60
2002-03	39.82	29.10	19.74	33.23	38.64	42.23
2003-04	37.28	24.18	22.67	34.85	41.80	43.25
2004-05	35.28	20.84	21.72	33.45	45.62	46.72
2005-06	38.72	22.34	19.31	31.75	43.29	49.28
2006-07	35.08	21.89	19.85	30.72	46.35	48.76
2007-08	31.85	20.63	22.26	30.69	51.14	50.84
2008-09	33.42	19.69	21.96	30.83	52.63	51.69
2009-10	35.46	20.12	19.23	29.84	51.26	54.36
2010-11	27.35	17.75	23.45	28.96	58.39	57.38

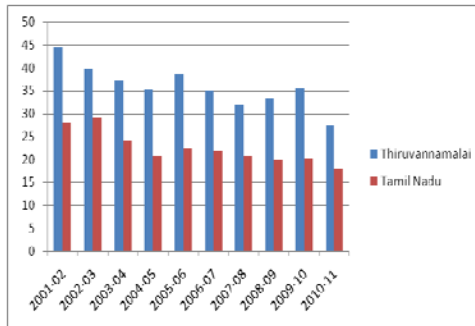
**Source:** Same as Table 3.10

**Figure 3.5: Sector-Wise Contribution to Total Net Domestic Product at 2001-02 Prices**

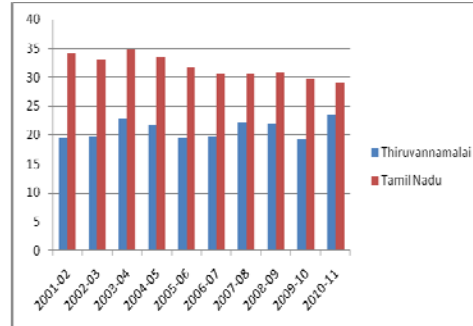
(in %)

3.1

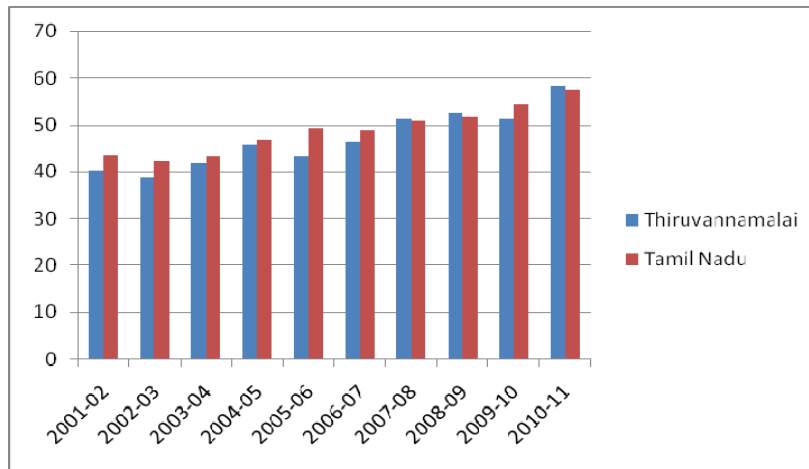
Primary



Secondary



Territory



**Poverty**

District-wise poverty estimates show that the percentage of population living below poverty line (BPL) had decreased in the period between 1993-94 and 1999-2000. The decline in poverty percentage was sharper in the urban areas than that of rural areas and the gap between both of them got narrowed from 8.24 to 1.16 per cent. The percentage of BPL population in this district was nearly double than that of the state and the gap

between state and the district had widened from 10.49 to 17.26 per cent in the same period. The difference between state and the district is wider in the urban areas as urban areas are characterized by more earning opportunities is not the case as for as Thiruvannamalai is concerned. Thiruvannamalai had fallen from 17<sup>th</sup> rank to 19<sup>th</sup> in the state in the same period indicating that it had performed relatively poor than other districts.

**Table 3.12: District-wise Poverty Estimates (BPL Population), 2001-02 to 2010-11**

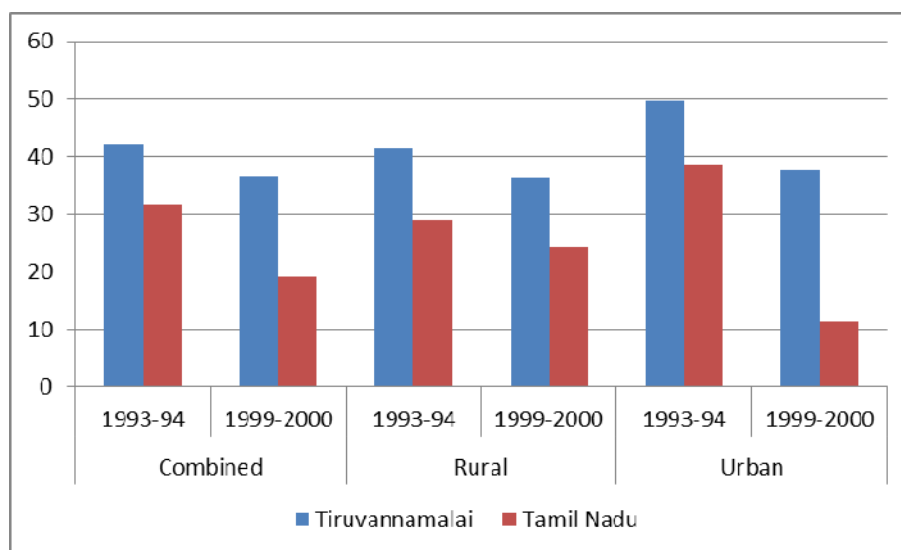
Dist./State	Combined		Rural		Urban	
	2001-02	2010-11	2001-02	2010-11	2001-02	2010-11
<b>Thiruvannamalai</b>						
No.	823634	775313	736936	706700	86698	68613
Per cent	42.15	36.44	41.41	36.34	49.68	37.35
<b>Tamil Nadu</b>						
No.	17052134	11334388	11200960	6855171	5851174	4479217
Per cent	31.66	19.18	28.93	24.3	38.63	11.3

**Source:** Same as Table 3.10

There were 145463 families living Below Poverty Line (BPL) in the district of Thiruvannamalai in the year of 1999. The largest number of BPL families lived in the block of Thiruvannamalai (14517) followed by Polur (10362) and Chengam (10014). It is further observed from the table that maximum percentage of SC BPL families to total BPL families is observed in the block of Chengam (40.14%) followed by Arni (39.48%). Except these two blocks, the other blocks showing more than 30% SC BPL families to total BPL families are Thurinjapuram, Kalasapakkam, Pudupalayam, Thandrampet, Cheyyar, Anakkavur, Vembakkam, Thellar and Pernamallur.

The share of SC BPL families to the total BPL families in the district (30%) is more than of their share in the population (21.39%).

**Figure 3.6 Percentage of population living below poverty line**



The share of ST BPL families to the total BPL families in the district was 6.02 per cent which was much higher than that of ST population to total population in 2001 (3.33%). As expected, the maximum share of ST BPL families was observed in the block of Jawadhu Hills (95.55%).

A simple analysis was made using the data on BPL families and population with the assumptions that the family size was uniform across the blocks and there was linear growth in population. It is indicated that the bottom five blocks in Thiruvannamalai district in terms of level of poverty were Jawadhu Hills, Thellar, Chetpet, Kalasapakkam and Pernamallur in the order of declining incidence of poverty. This result does not match the conventional understanding that blocks having higher proportion of SC families and the blocks with high incidence of poverty. Chetpet is a case in



point. The analysis based on share of SC population in the total population and share of SC families in the total BPL families indicate the need for analysis at the level of sub-sections of SC social group rather than taking them as a unit. As for Jawadhu Hills the presence of poor ST families is the primary reason for high incidence of poverty in the whole block.<sup>10</sup>

**Table 3.13: Number of BPL Families and Share of SC/ST in the Blocks of Thiruvannamalai District, 2010-11**

Sl. No.	Blocks	Total	Share (%)		
			SC	ST	Others
1.	Thiruvannamalai	14517	28.22	6.32	65.45
2.	Kilpennathur	8022	29.52	5.56	64.92
3.	Thurinjapuram	7383	31.04	2.64	66.31
4.	Polur	10362	24.35	0.93	74.72
5.	Kalasapakkam	8795	37.62	1.96	60.42
6.	Chetpet	8287	17.14	0.59	82.27
7.	Chengam	10014	40.14	3.85	56.00
8.	Pudupalayam	9494	37.51	3.37	59.12
9.	Thandrampet	9494	32.05	8.37	59.57
10.	Jawadhu Hills	3958	1.82	95.55	2.63
11.	Cheyyar	7479	35.71	5.16	59.13
12.	Anakkavur	5668	34.07	3.55	62.39
13.	Vembakkam	7527	30.70	0.93	68.37
14.	Vandavasi	7878	32.85	5.98	61.17
15.	Theallar	8400	32.20	4.88	62.92
16.	Pernamallur	7186	26.70	2.18	71.11
17.	Arni	7318	39.48	0.00	60.52
18.	West Arni	7184	22.19	0.39	77.42
	<b>Total</b>	<b>145463</b>	<b>30.25</b>	<b>6.02</b>	<b>63.73</b>

**Source:** 1) District Rural Development Agency, Thiruvannamalai,  
2) Dept. of Economics and Statistics, District Collectorate Office,  
Thiruvannamalai.

## **Growth and Poverty Reduction**

In the earlier section on income we discussed that the NDP of the state had grown annually by 5.43 per cent while that of the district had grown by 4.64 per cent between 1993-94 and 2001-02. But the poverty reduced by 12.48 per cent in the state when compared to 5.71 per cent in the district between 1993-94 and 1999-2000. When the difference in growth rate was only 1.17 percent, the difference in poverty reduction was 6.77 percent. Even after accounting for difference in the reference period, the difference between the state and district on this aspect is very significant. Within Thiruvannamalai while the poverty got reduced by 12.18 per cent in urban areas, in the rural areas it was only 5.07 per cent. This raises the question of why growth is pro-poor in some region and why not in other region. Various studies on economic development in India have indicated that difference in initial conditions of farm and non-farm economy accounts for this difference in poverty reduction (Ravallion and Datt, 2002). Non farm economic growth which was witnessed in the district was less effective in reducing poverty due to poorer initial conditions in terms of rural development (in both absolute terms and relative to urban areas), human resources and land distribution.

The role played by literacy amongst the initial condition is particularly notable in relation to prospects of pro-poor growth.

## **Agriculture**

It was observed earlier that the share of primary sector, which in the case of Thiruvannamalai means mainly agriculture and livestock rearing, had come down, but the workforce depending on primary sector had remained more or less the same. Further, production growth had not kept pace with that of the population growth. This has two kinds of implications, one regarding decline in income of the people depending on agriculture and the other is decline in food security. These two issues have series ramifications like increased migration and malnutrition they in turn can have serious consequences on human development. So it calls for detailed analysis of agriculture to understand the nature of the issues and chart a way forward.

## **Land use**

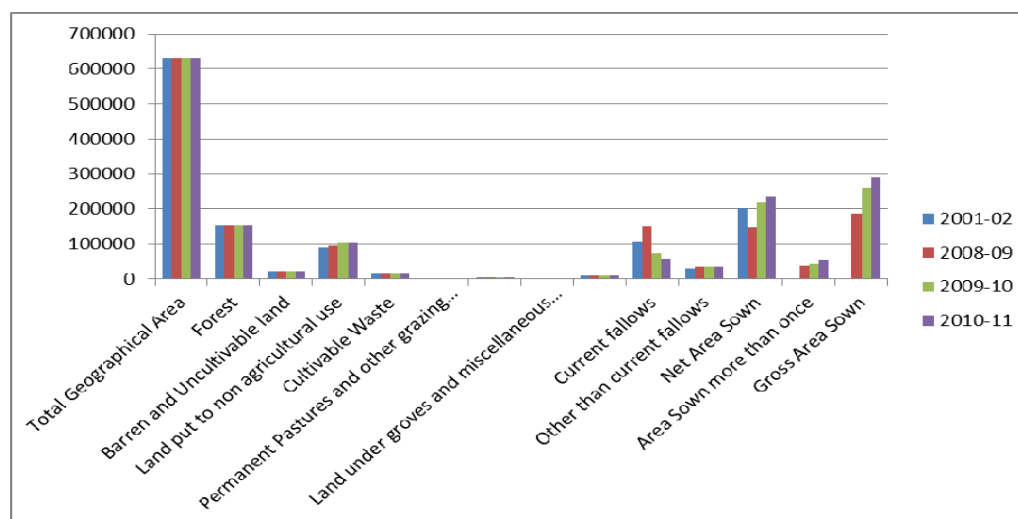
Trend analysis of land use indicates that there had been wide fluctuation in net area sown in the district and so in the current fallows. As ensuring cultivation is the primary step to increase income to the cultivators and agricultural labourers, specific reasons need to be found for the fluctuation in net sown area and necessary action to be taken to increase it to the potential level. The action plan of the agriculture department for the year 2005-06 rightly aimed at increasing net sown area. This has to be achieved particularly through reducing current fallows which in some years was alarmingly high. Increasing need of land for non agricultural use for various development purposes need to be kept in mind while designing interventions for increasing net sown area.

**Table 3.14: Land Use Pattern in Thiruvannamalai District, 2001-2011**

Sl.No.	Item	2001-02	2008-09	2009-10	2010-11
1.	Total Geographical Area	631205	631205	631205	631205
2.	Forest	153318	153318	153318	153318
3.	Barren and Uncultivable land	21813	22179	22179	22179
4.	Land put to non agricultural use	89800	94072	103518	103659
5.	Cultivable Waste	13375	15145	15458	15458
6.	Permanent Pastures and other grazing lands	3361	3759	4022	4022
7.	Land under groves and miscellaneous tree crops	9137	7930	8237	8237
8.	Current fallows	107035	151769	72872	54979
9.	Other than current fallows	30431	34541	34455	34455
10.	Net Area Sown	202935	148492	218146	235903
11.	Area Sown more than once		37290	41451	53472
12.	Gross Area Sown		185782	259597	289375

**Source:** Same as Table 3.13

**Figure 3.7: Land Use Pattern in Thiruvannamalai District, 2001-2011**



## Land Holding Structure

In the district 74 per cent of the total farmers were marginal farmers cultivating only 35 per cent of total area. Small farmers accounted for another 14.67 percent and they owned 25 per cent of the total area. The next category which owned sizable area of land was semi medium farmers. The district followed the same pattern as that of the state but the semi medium type of farmers were more in number and owned more proportion of land than that of the state. A lot depends on what happens in the lands of these three categories of farmers.

**Table 3.15: Land Holding Structure under Different Size Classes, 2010-11**

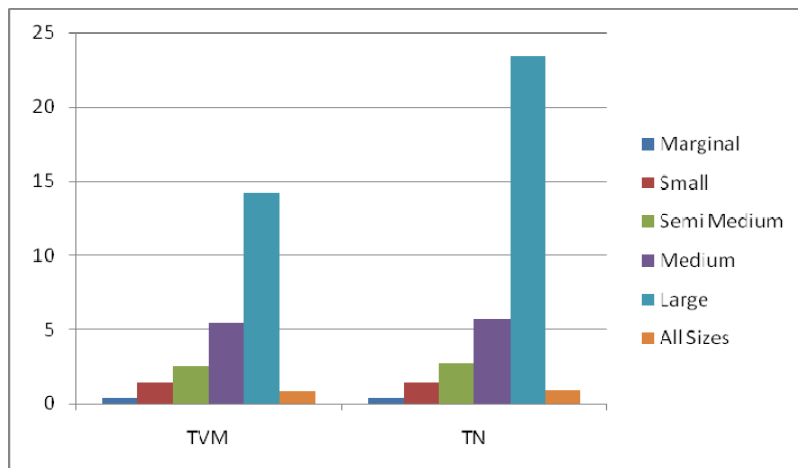
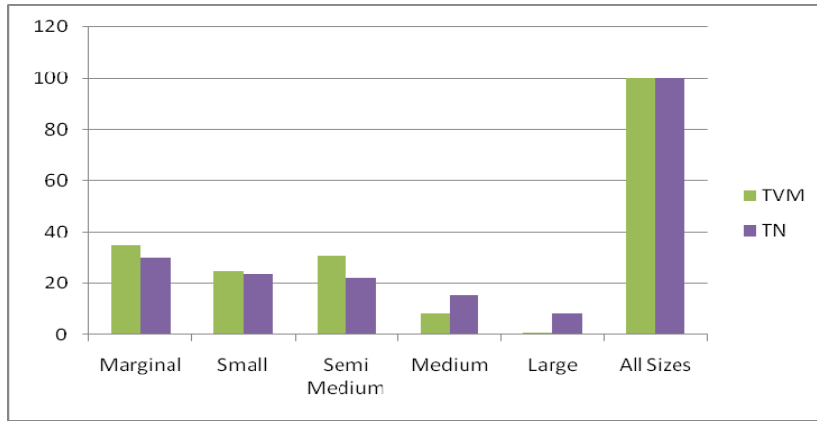
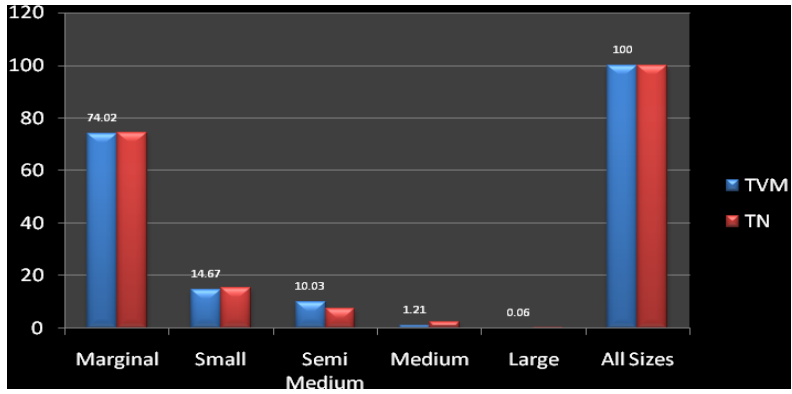
Size Classes	Share in total holdings		Share in total area operated		Average size of holding	
	TVM	Tamil nadu	TVM	Tamil nadu	TVM	Tamil nadu
<b>Marginal</b>	74.02	<b>74.28</b>	34.98	<b>30.27</b>	0.38	<b>0.37</b>
<b>Small</b>	14.67	<b>15.40</b>	24.89	<b>23.57</b>	1.37	<b>1.40</b>
<b>Semi Medium</b>	10.03	<b>7.50</b>	30.94	<b>22.22</b>	2.49	<b>2.70</b>
<b>Medium</b>	1.21	<b>2.49</b>	8.16	<b>15.54</b>	5.44	<b>5.68</b>
<b>Large</b>	0.06	<b>0.33</b>	1.03	<b>8.41</b>	14.19	<b>23.37</b>
<b>All Sizes</b>	100	<b>100</b>	100	<b>100</b>	0.81	<b>0.91</b>

**Source:** 1) Dept. of Economics and Statistics, District Collectorate Office, Thiruvannamalai.

2) Mission on Rain fed Agricultural Development in Tamil Nadu, Tamil Nadu Agricultural University, Coimbatore

Note: **TVM:** Thiruvannamalai

**Figure 3.8: Land Holding Structure under Different Size Classes, 2010-11**



## **Irrigation Infrastructure**

The average annual rainfall in the district is 1040 mm. Wells and tanks are the major source of irrigation except for some pockets irrigated by canal system. Number of electric pump sets per ha of NSA in the district of Thiruvannamalai was much better than that of the state. This was also reflected in the irrigation intensity and in cropping intensity. So this district is well endowed in terms of water availability and irrigation infrastructure. This means that major part of production can be stabilized if other factors are attended to. Then the major source of production instability is from rain fed cultivation. About 41 per cent of area fall under rain fed category in the district and considering the fact that the variation in rainfall is as high as 32.59 per cent there is considerable variation in the production of rain fed crops.<sup>11</sup>

## **Trend in cultivation of major crops**

This district had witnessed very significant increase in productivity of major crops in the 60's, 70's and 80's as depicted in the table on yield trend, as it was the cradle of green revolution in Tamil Nadu. But this table also indicates that there has been a stagnation in yield from 90's onwards. Analysis of changes in crop production in the last 10 years reveals that production of paddy, pulses and sugarcane had been declining rapidly. In the case of paddy, it was due to not maintaining the sharp rise in area and production between 1995-96 and 1998-99 and steep fall in area cultivated till 2004-05 with the exception being 2001-02. In the case of pulses, it was due to sharp decline in the area cultivated from 1995-96 onwards. In the case of sugarcane, it was due to sharp fall in the area after 2001-02. For rest of the three categories of crops viz, millets, oilseeds and cotton, no particular trend was observed. The coefficient of variation (CV) analysis indicates that all the

crops except oilseeds had witnessed instability in terms of production during recent time. Cotton had experienced higher variability than other crops. From the interaction with officials it was found that the trend towards diversifying from agriculture to horticulture in terms tree crops, vegetables, flower crops and herbal crops was also not very much visible in the district except in few pockets.

**Table 3.16: Production of Major Crops in Thiruvannamalai District, 2010-11**

Crop	Growth Rate	Average (L.MT.)	CV (%)	Comment
<b>Paddy</b>	-11.39	2.94	41.21	Declining significantly
<b>Millets</b>	No Trend	0.32	46.01	No Change
<b>Pulses</b>	-13.34	0.17	3.34	Declining significantly, Variable
<b>Oilseeds</b>	No Trend	1.64	26.53	Stable than others
<b>Cotton</b>	No Trend	0.03	199.84	Highly Variable
<b>Sugarcane</b>	-19.62	1.96	56.71	Declining significantly, Variable

**Source:** 1) Dept. of Agriculture and allied activities, Statistical Division, Collectorate, Thiruvannamalai.

2) Statistical Hand Book of Thiruvannamalai District

**Note:** 1) CV Coefficient of Variation

2) LMT Lakh Metric Tonne

From the yield gap table, it is observed that yield gaps are present with most of the crops grown in this district. The highest gap in yield is observed in case of Cumbu (32.50%) followed by paddy, black gram, green gram and groundnut each of them having more than 23 per cent yield gap. So there is lot of scope for increasing production from the existing area itself.



**Table 3.17: Yield Gap of Major Crops in Thiruvannamalai District, 2010-11**

Sl.No.	Crop	Potential Yield (Kg/ha.)	Average Yield (kg/ha.)	Yield Gap (Kg/ha.)	Yield Gap (%)
<b>1</b>	<b>Paddy</b>	4200	3200	1000	23.81
<b>2</b>	<b>Millets</b>				
	Cholam	900	700	200	22.22
	Cumbu	2000	1350	650	32.50
	Ragi	1700	1600	100	5.88
	Thenai	450	400	50	11.11
	Varagu	950	900	50	5.26
	Samai	1170	1160	10	0.85
	Maize & Other Millets	2000	1700	300	15.00
<b>3</b>	<b>Pulses</b>				
	Blackgram	650	500	150	23.08
	Green gram	650	500	150	23.08
	Red gram	750	600	150	20.00
	House gram	425	400	25	5.88
	Cowpea	275	250	25	9.09
	Mochai & Other Pulses	270	250	20	7.41
<b>4</b>	<b>Oilseeds</b>				
	Groundnut	1950	1500	450	23.08
	Gingelly	750	677	73	9.73
	Sunflower	1400	1300	100	7.14
<b>5</b>	<b>Cotton (Lint)</b>	500	400	100	20.00
<b>6</b>	<b>Sugarcane (Gur)</b>	11000	10000	1000	9.09

**Source:** Office of the Joint Director of Agriculture, Thiruvannamalai

### **Block wise Analysis on Agriculture**

Block wise analysis of land use indicates that current fallow was very high in 2003-04 in Vandavasi, Polur, Pernamallur, West Arni, Kalasapakkam, Thellar and Thuriniapuram. Other fallow land proportion was significantly high in Chetpet, Kalasapakkam and Polur. If these lands were brought to cultivation by tackling the factors resulting in fallow, then the

production can be significantly improved. Besides that increasing fallow land is an indicator of reduction in interest in agriculture and also faith in it as a viable livelihood. So there is need for interventions that ensure income security of farmers.<sup>12</sup>

As in some of the blocks like Jawadhu Hills and Pernamallur there is high production of rain fed areas special focus need to be given to take specific interventions to improve the production in these areas.

It is observed from the table of cropping intensity of the blocks of Thiruvannamalai district that the block of Polur had the highest cropping intensity among all the blocks to the tune of 228 per cent. None of the block other than this block had crossed the 200 per cent cropping intensity in this district. The high cropping intensity in the block of Polur may be attributed to the flow of water received by this block from Jawadhu Hills. The next block with the second highest cropping intensity was Kilpennathur (185%). The other blocks showing higher value of cropping intensity were Anakkavur (145%) and Thiruvannamalai (133%). The lowest cropping intensity among the blocks was found in the block of Pudupalayam (103%) followed by Kalasapakkam (104%), Thurinjapuram (108%), Thandrampet (111%) and Thellar (111%). Given the irrigation water availability in the blocks of this district, if conscious efforts were taken to increase water use efficiency, cropping intensity can be considerably increased.

**Table 3.18: Block-wise Agriculture Details in Thiruvannamalai District, 2010-11**

Blocks	Current fallows	Other fallow lands	Share of irrigated area to Net Sown Area	Cropping Intensity
Anakkavur	15.69	6.29	50.73	145
Arni	5.43	7.46	63.85	123
Arni (West)	25.08	5.01	62.90	126
Chengam	1.20	4.64	NA	118
Chetpet	7.13	9.05	28.76	120
Cheyyar	4.76	8.90	52.82	116
Jawadhu Hills	3.25	1.09	28.88	154
Kalaspakkam	23.02	10.50	16.37	104
Kilpennathur	19.18	2.23	58.60	185
Polur	35.68	11.16	50.28	228
Pernamallur	25.91	6.16	26.15	113
Pudupalayam	13.75	0.62	80.89	103
Thandrapet	7.29	4.98	59.32	111
Thellar	22.60	2.72	46.57	111
Thurinapuram	22.60	1.02	56.11	108
Thiruvannamalai	14.75	0.98	58.80	133
Vembakkam	11.99	8.71	65.91	123
Wandiwash	37.21	3.02	NA	117

**Source:** Block Statistical Handbook

A large section of population depends on agriculture for their livelihood in the district. The share of marginal and small farmers in the district is around 90 per cent and their share in the area cultivated is around 54 per cent. Tanks and wells were the primary sources of irrigation. Though depletion of the ground water is at alarming level in some parts, the district is in a relatively better position regarding ground water than many other districts. The area under irrigation is increasing very slowly. Around 41 per cent of the gross cropped area is cultivated with rained crops. Cheyyar river

is one of the important irrigation sources in the northern part of the district. The performance in agriculture of the northern part of the district is better than the southern part because of better rainfall and irrigation availability.<sup>13</sup> Major crops in the district are paddy, groundnut, millets, pulses and sugarcane. Few new initiatives were also taken up in this district. Contract Farming has been introduced in this district particularly for two crops, Coleus and Jatropha, but on a small scale (10000 acres each). Drip irrigation, Systemic Rice Intensification (SRI) and pit method of sugarcane cultivation has been introduced among the farmers. This district is known as the rice exporting and paddy importing one as large number of rice mills are situated here.

But the overall picture is one of stagnation and decline. The net area sown has fluctuated very much with the current fallow increasing over time. The production of most of the major crops in the district had declined in the last 10 years particularly due to decline in area. Yield has stabilized and the improvement in the last 10 years had been very marginal. This is the case in spite of very large yield gaps. Cotton production had been fluctuating very much. The decline in area under crops does not seem to be replaced with horticultural crops like trees, vegetables or flower crops. The variation in production of rain fed crops was very high due to vagaries of monsoon. Farmers often get non-remunerative prices for their produce. There has been large scale migration of male work force to nearby large cities.

The main reasons for such a situation were:-

- Inadequate application of technologies
- Inadequate availability of good quality seeds and seeds of new varieties
- High variation in rainfall pattern
- Inadequate water use efficiency and inadequate adoption of technologies for the same
- Poor maintenance of irrigation tanks
- Irrational use of chemical inputs
- Inadequately capitalizing the marketing opportunities in the nearby Chennai and Bangalore
- Inadequate infrastructure and institutional mechanisms for capitalizing the marketing opportunities.

There is urgent need for shift away from '**crop focus**' to '**livelihood focus**' by all the actors involved in promoting agriculture in the district. Farming system approach needs to be followed. The twin focus should be **ensuring food security and income security, in an ecological way.** Again to ensure food security for the cultivators, the main focus need to be on self provision through own cultivation, as it only ensures healthy food. Under the farming system approach, the district need to be divided into various typologies based on soil, climate and irrigation availability and existing viable farming systems practiced by the successful farmers in each typology need to be understood. Based on the inputs from university and relevant bodies other viable livelihood options have to be found for each

typology. All the actors need to focus on taking these two kinds of viable farming system options to a large scale through various institutional arrangements.<sup>14</sup>

### **Demographic trends and Health Indicators**

Demographic trends indicate broader changes that are happening in the population characteristics which have either positive or negative influence over human development. For example the phase of demographic transition witnessed in the district indicates on the one hand the challenges to be met ensuring human development and on the other hand general well being of the population. That way it has both input and outcome implications. Sex ratio is another such case. This section focuses on those demographic indicators which have significant influence on human development and on their relationship with health indicators.

### **Growth of Population**

An analysis of the decennial growth of population in the district from 1971 to 2001 shows that total population grew much slower than the state. The difference in growth rate between state and the district has widened over time and it was very sharp between 1991 and 2001. In fact, the population growth rate of the district (7.01%) between 1991 and 2001 was lower than that of Kerala (9.42%), which is considered to be one of the model regions even among the South Asian countries. Further exploration is necessary to understand the reasons for this phenomenon as Thiruvannamalai cannot be compared with Kerala in terms of education and

social awareness.<sup>15</sup> The female population has grown at a marginally higher rate than that of males indicating an environment favouring females.

The share of SC population has declined marginally between 1991 and 2001 and it was 21.39 per cent by 2001. ST population has grown at more than double the growth rate of overall district population. As it is generally considered that high growth rate of population is due to lack of awareness and education and economic backwardness, ST households can be said to be in that stage. Even then their share in the total population has increased only by 0.29 per cent due to their low share in the total population.

It was also observed that while urban population has grown at a very high rate, the rural population has declined. This was due to conversion of many rural areas into urban ones in the district. This indicates that the urbanization trend has set in the district. The density of the population in the district remained much lower than that of the state and most of the other districts.

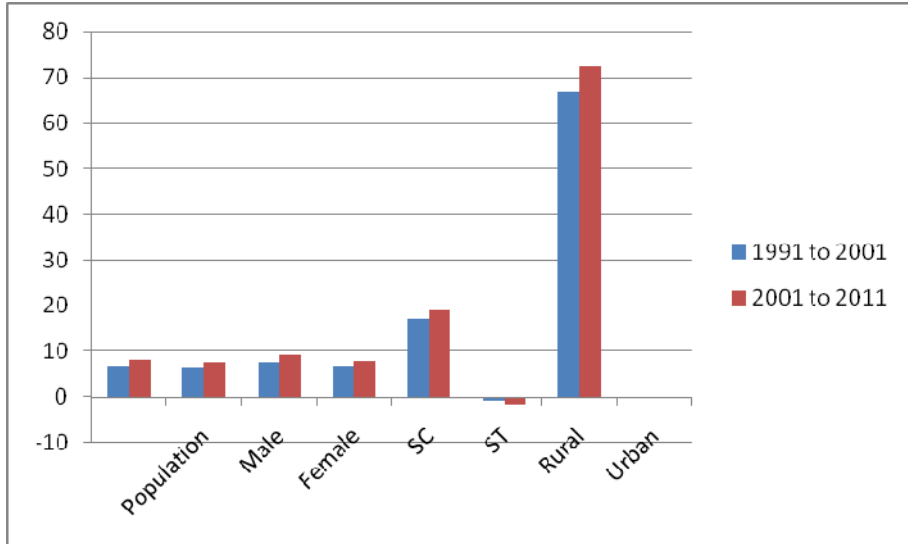
**Table 3.19: Decadal Changes in Population, 1991-2011**

Details	Thiruvannamalai		Tamil Nadu	
	1991 to 2001	2001 to 2011	1991 to 2001	2001-2011
Population	7.01	8.29	11.72	13.60
Male	6.39	7.64	10.96	12.21
Female	7.64	9.26	12.50	14.19
SC	6.65	7.82	10.69	11.86
ST	17.23	19.04	13.43	14.32
Rural	-0.82	-1.68	-5.06	-6.78
Urban	66.78	72.38	44.06	48.26

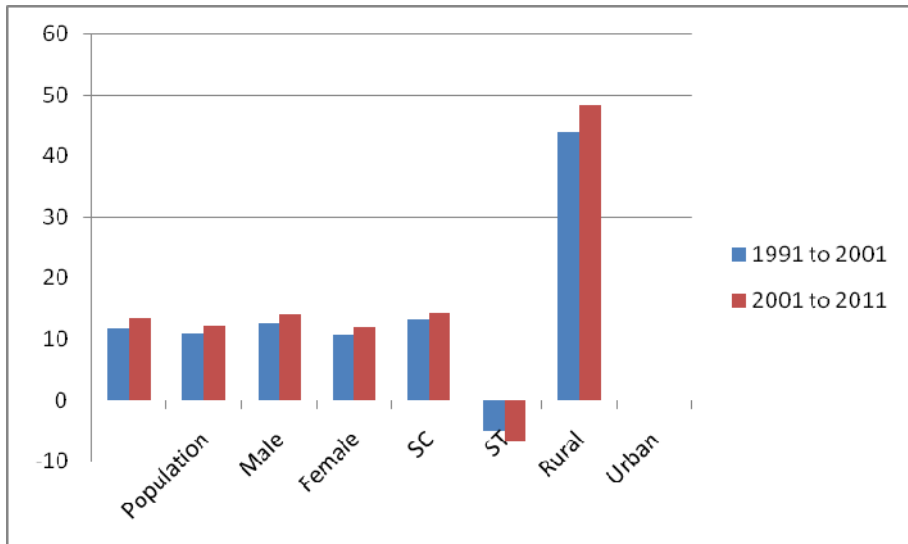
**Source:** Compiled from various issues of Census of India – Tamil Nadu Series

**Figure 3.9: Decadal Changes in Population, 1991-2011**

Thiruvannamalai



Tamilnadu





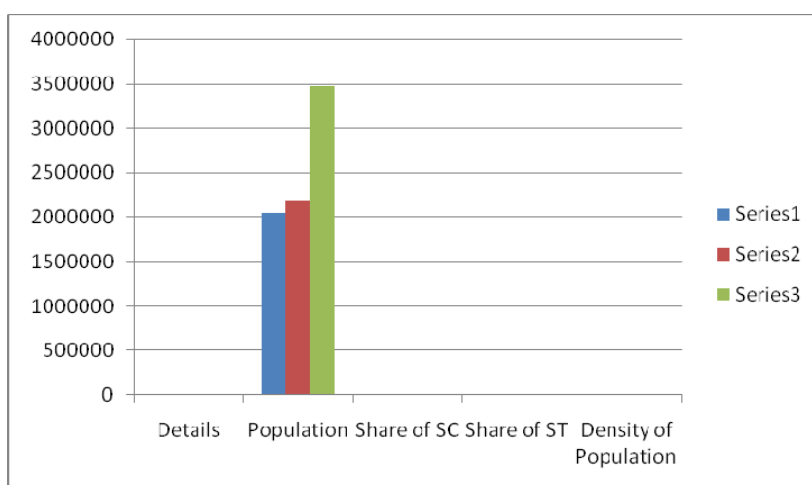
**Table 3.20: Demographic Profile of Thiruvannamalai, 1991-2011**

Details	Thiruvannamalai			Tamil Nadu		
	1991	2001	2011	1991	2001	2011
Population	2042979	2186125	3468965	55858955	62405679	72138958
Share of SC	21.46	21.39	19.00	19.18	23.79	24.02
Share of ST	3.04	3.33	1.05	1.03	1.04	1.08
Density of Population	330	353	654	429	450	382

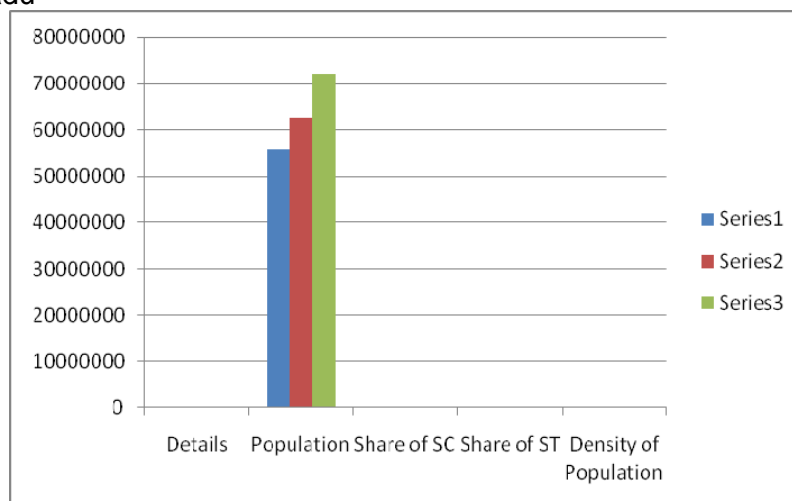
**Source:** Compiled from various issues of Census of India reports, 1991-2011

**Figure 3.10: Demographic Profile of Thiruvannamalai**

Thiruvannamalai



Tamilnadu



### **Crude Birth Rate (CBR)**

The CBR in the district has declined higher than that of the state. Between 1998 and 2003, the district CBR declined from 19.9 to 18.6 (a decline of nearly 6.5%) while for the state it declined from 19.2 to 17.8 (7.3%). Rural-Urban difference in CBR in 1998 was 1.8 for the district and it was 2.9 for the state. Male female difference in CBR was 1 in the district in 1998 and it was 0.9 for the state. The CBR of Thiruvannamalai was lower than that of Dharmapuri district but marginally higher than that of Vellore district and significantly higher than that of Kanniyakumari district. CBR estimated for the district from 2001 censuses by Gulmoto and Rajan (2002) was lower than the estimates from Vital Event Survey, estimation of CBR from censuses 2001 indicated that CBR of Thiruvannamalai (17.7) was marginally higher than that of the state (17.2). As per both the estimates, the district has surpassed goal for 2000 (21) set by National Health Policy. Sustained efforts are needed to reach the goal for 2007 (15) set by the State Tenth Plan Document.

### **Crude Death Rate (CDR)**

The district CDR has declined at a faster rate from 8.5 to 7.3 between 1998 and 2003 than that of the state but still it was greater than that of the state. The variations between rural and urban CDR was similar in the state (2.7) and the district (2.6) in 1998. However, the district urban and rural CDR were higher than the respective state CDR in 1998. The CDR of the district was same as the district of Vellore (7.3) and it was higher than that of

Kanniyakumari (5.6) and Dharmapuri (6.8). As per the Vital Event Survey, the district has surpassed goal for 2000 (9) set by National Health Policy. Sustained efforts are needed to reach the goal for 2007 (6) set by the State Tenth Plan Document.

### **Total Fertility Rate (TFR)**

Estimation for TFR from Censuses 2001 data by Gulmote and Rajan (2002) indicated that TFR of Thiruvannamalai (2.1) was considerably higher than that of state (1.8). The district TFR was lower than that of Dharmapuri (2.6) but higher than that of Vellore (1.9) and Kanniyakumari (1.6) districts. The significant aspect is that the district has achieved the replacement level of fertility (2.1 children per quality women). But it is to be noted that much of the decline in TFR had been achieved by the decline in child bearing of older women and not that of young women. DLHS-2002 indicated that the age specific fertility in the younger age groups 20-24 and 25-29 were 0.161 and 0.102, respectively. So the achievement regarding TFR may be due to sterilization and not due to change in social attitude towards woman. The available data indicates that the district has not reached the goal for 2000(2) set by National Health Policy. Sustained efforts are needed to achieve that goal

### **Migration**

Migration has significant impacts on population and it is very much so in Thiruvannamalai as there is large exodus of labour to nearby cities like Bangalore and Chennai. As data is available only for migration it is presented here. From the table it is obvious that there was very significant

level of intra-district migration followed by inter-district migration. As in the state female migrants were more than that of male migrants. Female migration was on account of the families moved or due to marriage and in respect of males migration was either due to the family having moved and/or for employment.<sup>16</sup>

In terms of population growth in-migrants would not have made significant difference in Thiruvannamalai, as they constituted only 3 per cent of the population. To understand whether out-migrants have significant impact on population levels, estimate of out-migrants is needed. Understanding the purpose of migration, particularly that of migration for livelihoods would help in understanding its human development implications.

**Table 3.21: Status of Immigrants in Thiruvannamalai District, 2011**

Particulars	Persons	Males	Females
Total Population	2,186,125	1,095,859	1,090,266
Born in India	2,182,744	1,094,138	1,088,606
Within the state of enumeration	2,178,180	1,092,614	1,085,566
Born in the place of enumeration	1,894,683	1,011,857	882,826
Born elsewhere in the district of enumeration	223,541	64,491	159,050
Born in other districts of the state	59,956	16,266	43,690
States in India beyond the state of enumeration	4,564	1,524	3,040

**Source:** Census of India, 2011

A wide variation in the rates of decadal growth in population between 1991 and 2001 was observed across the blocks in the district of Thiruvannamalai. Chetpet, Kilpennathur and Cheyyar experienced negative

growth rate. Next to them Anakkavur, Kalasapakkam, Pudupalayam and Pernamallur experienced very low level of growth (less than 3.5 %). Though low decadal growth can be taken as a positive trend, further exploration is required to know the role of specific reasons like out-migration for the same. Out of the nine blocks which experienced higher growth rate six blocks fell in the urban category and three in the rural category. This reflects the overall trend in the district that population growth was high in urbanized blocks (both new and old). Jawadhu Hills experienced very high growth rate of 31.25 per cent and so resulted in growth rate of ST population in the district.<sup>17</sup>

It is difficult to infer much from the data on decadal growth of SC and ST population. Taking only 8 blocks with about 25000 SC population in 1991, it was found that population has declined in Kilpennathur significantly and Thellar had only 0.37 per cent decadal growth. SC population decadal growth was more than that of the over all growth rate only in Chengam and Cheyyar. In other blocks it was lower than that of the block. Further block level analysis is necessary to understand why there was decline in SC population in Kilpennathur and high SC growth rate was observed in Chengam, Jawadhu hills and Thandrampet were only considered for analyzing sub-district change in ST population as they had more than 10000 ST population in 1991. It was found that ST population grew at a very high rate in Jawadhu Hills. This was in line with very high total population growth in the block and total ST population growth in the district.

**Table 3.22: Decadal Changes in the Population of Blocks in Thiruvannamalai District, 2001 to 2011**

Blocks	Decadal Change in Population, 2001-2011		
	ALL	SC	ST
Anakkavur	0.57	4.59	-2.81
Arni	9.73	45.03	33.20
Arni (West)	9.68	4.78	31.89
Chengam	10.96	15.32	11.28
Chetpet	-1.07	-12.93	-70.82
Cheyyar	5.16	9.05	-5.19
Jawadhu Hills	31.25	8.14	27.56
Kalaspakkam	2.35	3.01	315.71
Kilpennathur	-0.02	-4.00	43.69
Pernamallur	3.51	11.33	30.80
Polur	9.32	13.12	-80.71
Pudupalayam	2.84	2.44	-48.04
Thandrampet	9.99	7.46	10.74
Thellar	-0.86	0.37	-6.35
Thurinjapuram	9.28	7.75	22.29
Thiruvannamalai	11.99	9.34	31.73
Vandavasi	7.50	7.20	31.19
Vembakkam	7.03	6.12	-29.48
District	7.01	6.65	17.23

**Source:** Census of India, 2001 and 2011, Thiruvannamalai District

### **CBR and CDR in the Blocks**

As per the available data, in 2003, only two blocks, Pernamallur and Arni, had CBR less than 17, while in 2005, it has been increased to seven blocks including other five blocks, Thellar, Cheyyar, West Arni, Jamanamarathur and Vembakkam. On the contrary, the CBR of Thiruvannamalai, Thandrampet and Chengam blocks remained above 19 in both the years. On the whole, the CBR of Cheyyar HUD was comparatively

lesser than that of Thiruvannamalai HUD. Taking 2003 as the year for comparing between the blocks and the district it was found that all the 10 blocks in Thiruvannamalai HUD had CBR above that of the district.<sup>18</sup>

**Table 3.23: Block-wise CBR and CDR in Thiruvannamalai District, 2010-2011**

Blocks	CBR		CDR	
	2010	2011	2010	2011
<b>Thiruvannamalai HUD</b>				
Thiruvannamalai	19.07	19.20	5.93	6.89
Thandrampet	19.04	19.13	6.53	6.02
Chengam	19.37	19.35	6.14	7.55
Pudupalayam	18.94	18.17	5.64	7.54
Jamunamarathur2	20.88	16.63	4.21	2.92
Chetput	19.24	17.88	6.75	6.85
Polur	18.85	17.76	5.46	6.93
Kalasapaakkam	19.46	18.87	7.57	8.15
Thurinjipuram	18.84	18.17	6.26	7.39
Kilpennathur	19.11	18.35	5.73	6.25
<b>Rural Total</b>	19.16	18.54	6.14	6.87
Thiruvannamalai Mpty.	NA	15.64	NA	4.50
<b>TMV HUD Total</b>	NA	18.26	NA	6.61
<b>Cheyyar HUD</b>				
West Arni	17.47	16.60	3.37	6.50
Arni	16.88	16.70	5.38	5.90
Permamallur	16.80	15.20	6.44	8.00
Vembakkam	17.53	16.80	6.96	6.40
Cheyyar	17.53	16.60	5.09	5.20
Anakkavur	18.63	17.70	7.14	7.40
Vandavasi	18.68	17.50	4.74	6.30
Thellar	18.13	14.50	5.03	5.20
<b>Rural Total</b>	17.70	16.50	5.48	6.30
<b>Cheyyar HUD Total</b>	NA	NA		

**Source:** Deputy Director of Health Services, Thiruvannamalai HUD and Cheyyar HUD Read as Jawadhu Hills

As per the available data the CDR for the block of Jamunamarathur was very low in 2005 which could be due to low reporting. The death rate was the highest in Kalasapakkam (8.15) followed by Pernamallur, Chengam, Pudupalayam and Anakkavur. Overall, the CDR of each block was higher in 2005 as compared to 2003 except in Thandrampet and Vembakkam. This could be because of the improvements in the vital event reporting process. However, the blocks in Cheyyar HUD had lower CDR than Thiruvannamalai HUD with the exception of Jamunamarathur. CDR less than 6 was observed in Thellar, Cheyyar and Arni.<sup>19</sup>

### **Family Planning Measures**

Significant decline in the district's TFR and CBR had been due to many socio economic reasons as mentioned earlier. Birth control measures, particularly sterilization are one of the other important reasons for the same. District Level Health Survey-RCH project (DLHS) in 2002 indicated that all the sampled women in the district were aware of at least one modern method of contraception and 15 per cent of husbands were aware of No Scalpel Vasectomy (NSV). The contraceptive prevalence rate was 58.1 per cent, with 57.6 per cent adopting modern methods and less than one per cent (0.5 per cent) using traditional methods. Among them 56 per cent underwent female sterilization and there was no male sterilization. Among those who used temporary methods condom and IUD were less than one per cent (0.4 per cent and 0.9 per cent respectively). This is in contrast with that of the data from Health department which indicated that IUD was practiced more or less on par with sterilization. The total unmet need for



family planning among currently married women was 14 per cent of which ten per cent for limiting and only four per cent for spacing, implicating a low demand for temporary methods.

Presence of only female sterilization and no male sterilization in the district raises gender related questions about the population policy.<sup>20</sup> More participation of men in both temporary and permanent methods of contraception is needed.

### **Sex Ratio**

Sex ratio is a widely used indicator of gender discrimination as it captures various faces of discrimination against women like lack of bargaining power, lack of education and health investment, lack of asset ownership, etc. Many studies have provided evidence that excessive female mortality before birth, in infancy, and in childhood, which mainly account for the imbalance in sex ratios. Given this, it is perhaps more apt a problem of missing girls than missing women, as popularized by Sen. Board interrelated factors that create a situation where sons are preferred and daughters suffer discrimination and neglect are: Patrilineal patterns of inheritance, exogamous lineage system of women, existence of the dowry system, sons providing old age support to parents and not daughters, sons alone can perform the funeral rituals of the parents, increasing proportion of small families and raising cost of upbringing particularly that of education. By nature males exceed females in numbers at the time of birth and it is believed that somewhere around 943-952 female births take place per 1000 males, which is later offset by a naturally higher level of mortality for males.

In regions which are characterized by lack of discrimination against women, the sex ratio is around 1050. But in most of the Asian countries it is less than 1000. Thus the most serious contemporary concern is the elevated female death rates due to gender discrimination, which offsets the natural lower mortality of females. Economic development does not necessarily solve this issue and in some cases sex ratio had declined with the economic improvement. So in the following section analysis of sex ratios is attempted for the district.

Sex ratio of the district was higher than that of the state both during 1991 and 2001. This includes that the difference between male and female was lower in the district than in the state. Sex ratio in the district had improved by 12 points between 1991 and 2001 indicating that there is further narrowing of difference between male and female. The sex ratio of urban areas was considerably better than that of rural areas in 2001. The sex ratio of SC population was higher than that of total population in the district. So it can be inferred that the difference between male and female was less in urban areas and in SC population. Here too ST population was an exception. The sex ratio of ST population was considerably lower than that of the district indicating that disadvantaged condition of female when compared to male in this social group. The inferences from improvement in sex ratio observed in the district need to be tempered with role of out-migration in improving sex ratio.<sup>21</sup>

**Table 3.24: Sex Ratio in Thiruvannamalai District, 1981-2011.**

Details	Sex ratio						
	All age groups				0 – 6 age group		
	1981	1991	2001	2011	1991	2001	2011
State	977	974	987	993	948	942	945
District	979	983	995	990	964	948	952
Rural	976	984	993	996	987	944	956
Urban	980	981	1003	1005	1002	964	969
SC	964	979	1002	1007	1006	976	980
ST	948	952	970	968	972	981	984

**Source:** Same as Table 3.23

Sex ratio of 0-6 year's age group in the district had declined from 964 to 948 between 1991 and 2001 indicating a move towards reversal in the trend favouring boys. In this age group sex ratio in urban areas was favouring girls fairly well than that of the rural areas. Further exploration is essential to understand whether the sex ratio at birth or at infancy had declined or at what specific age girls' death in the age group of 0 to 6 had increased. If the decline is at birth then it is obvious that it was due to sex selective abortion. If it is at the early neo natal stage it could be female infanticide.<sup>22</sup>

Further age group wise analysis of sex-ratio in the year 2001 indicated that the sex ratio of the district was little higher in each 5 years age group from 0-19 and little more higher in each 5 year age of 30-69 than the state. The sex ratio of the state for the 20-24 age group indicated that for every 1000 males there were 19 more females while the district had 35 less which may be attributed to maternal mortality or migration. This again

indicates that either the female deaths or the female out migration may be higher in this age group of Thiruvannamalai district. The 50-69 age group sex ratio was favouring females in the district and in the state indicating that more males die in this age group. However the district was experiencing higher male deaths than that of the state.

**Table 3.25: Age Group-Wise Sex Ratios, 2011**

Age Group	TAMIL NADU		Thiruvannamalai	
	Population Share	Sex Ratio	Population Share	Sex Ratio
0-4	<b>8.17</b>	946	<b>8.44</b>	950
5-9	<b>8.97</b>	948	<b>9.81</b>	954
10-14	<b>9.63</b>	948	<b>10.68</b>	959
15-19	<b>9.91</b>	972	<b>10.50</b>	973
20-24	<b>9.30</b>	1,019	<b>9.08</b>	965
25-29	<b>9.16</b>	1,093	<b>8.38</b>	1,060
30-34	<b>7.51</b>	1,000	<b>6.53</b>	1,057
35-39	<b>7.88</b>	1,052	<b>7.43</b>	1,126
40-44	<b>6.07</b>	914	<b>5.64</b>	923
45-49	<b>5.79</b>	959	<b>5.69</b>	979
50-54	<b>4.51</b>	939	<b>4.34</b>	978
55-59	<b>3.58</b>	1,026	<b>3.68</b>	1,094
60-64	<b>3.28</b>	1,011	<b>3.45</b>	1,050
65-69	<b>2.20</b>	1,072	<b>2.39</b>	1,090
70-74	<b>1.65</b>	982	<b>1.77</b>	956
75-79	<b>0.80</b>	905	<b>0.87</b>	832
80+	<b>0.89</b>	1,040	<b>0.90</b>	935
Age not stated	<b>0.69</b>	917	<b>0.43</b>	919
All ages	<b>100</b>	987	<b>100</b>	995

**Source:** Census of India, 2011

**Table 3.26: Block-wise and Social Group-wise Sex Ratio in Thiruvannamalai, 2011**

Blocks	All		SC		ST	
	Sex Ratio	Change Over 1991	Sex Ratio	Change Over 1991	Sex Ratio	Change Over 1991
Anakkavur	997	-4	980	-3	1060	50
Arni	1004	12	1028	33	982	-10
Arni (West)	1011	4	1052	30	1094	78
Chengam	972	11	984	24	1050	76
Chetpet	1018	28	1037	39	932	-59
Cheyar	1007	19	1004	29	958	-42
Jawadhu Hills	942	13	1029	161	942	7
Kalasapakkam	889	13	978	12	948	-91
Kilpennathur	1015	33	1020	47	1037	92
Pernamallur	1022	22	1015	14	1047	118
Polur	1005	5	1018	-5	1138	183
Pudupalayam	983	1	999	22	986	-7
Thandrampet	985	20	998	36	989	40
Thellar	988	2	1011	21	1018	47
Thurinapuram	990	18	1014	46	924	-33
Thiruvannamalai	983	8	996	12	1004	43
Vandavasi	997	10	979	10	1014	-34
Vembakkam	993	6	982	22	1011	45
District	995	12	1002	23	970	18

**Source:** Census of India for 2011, Tamil Nadu series District wise

The sex-ratios in most of the blocks in the year 2001 had improved over that of 1991 except in Anakkavur. The increase was exceptional in Kilpennathur (33) and Chetpet (28). They were followed by Cheyyar, Pernamallur and Thandrampet. As many as eight blocks were exhibiting more than 1000 sex ratio in the year of 2001. The highest sex ratio was

observed in the block of Pernamallur while the lowest was in the block of Jawadhu Hills.<sup>23</sup>

The sex ratio of SC population in all the eight blocks which had more than 25000 SC population by 1991 had improved. Among them Cheyyar, Kilpennathur and Thellar had sex ratio more than that of district SC population indicating a better position of women when compared to men in the SC community in these blocks.

Though improvement in sex ratios can be generally taken as improvement of positions of women with respect to men in the block or social group, the role of migration need to be identified.<sup>24</sup> Migration might have played a big role in blocks where there was very high improvement in sex ratios between 1991 and 2011.

### **Slum Population**

Slum population has become synonymous to that of poor and so analyzing the status of slum population is very much essential. It is found that the percentage of slum population to the urban population in the district of Thiruvannamalai had decreased from 25 per cent to 12.75 per cent. This is mainly because many rural areas in 1991 had become urban in 2011.

**Table 3.27: Slum Population in Thiruvannamalai District, 1991-2011**

<b>Years</b>	<b>Items</b>	<b>Thiruvannamalai</b>	<b>Tamil Nadu</b>
<b>1991</b>	Urban Population	242928	19079562
	Identified Slum Population	60732	4769390
	Percentage	25.00	25.00
<b>2001</b>	Urban Population	400549	27241553
	Identified Slum Population	65490	4949704
	Percentage	16.35	18.17
<b>2011</b>	Urban Population	560174	40949729
	Identified Slum Population	71438	7840271
	Percentage	12.75	19.14
<b>Percentage of Decadal Change of Slum Population: 1991-2001</b>		<b>-8.65</b>	<b>-6.83</b>
<b>Percentage of Decadal Change of Slum Population: 2001-2011</b>		<b>-3.6</b>	<b>+0.97</b>

**Source:** 1) Same as Table 3.26  
2) Slum Demography of Censuses 1991-2011.

In that sense decadal change in slum population (8%) which was double that of the state is not significant because the base slum population in Tamil Nadu in 2011 was incomparably higher than that of the district. The highest slum population in the district was found in the town of Thiruvannamalai. There it had increased from 0.97 per cent in 1991 to 20.64 per cent of total population of the town in 2001. The increase in share of slum population to the town population, Arni was less dramatic from 4.19 per cent in 1991 to 7.18 per cent in 2011.

Literacy and education has the unique characteristics of being both the means and end of human development, as It has both instrumental and intrinsic value. They have a great instrumental role in improving the capabilities, there by improving the freedom of choice of human beings which is the basics of human development. Tamil Nadu, given is rich

heritage in education, is in the forefront with regard to several educational indicators such as literacy, school enrolment, infrastructure, access and achievement.<sup>25</sup> Thiruvannamalai being a backward district lot of attention was bestowed by the State on education in the recent past.

### **Literacy performance of Thiruvannamalai District**

One cannot overstate the instrumental role of literacy in bringing out various dimensions of human development. Literacy played a notable role in making growth of non farm economy pro-poor in various states of India. The role of female literacy is much more crucial for bringing about human development not only in this generation but also in future generation. Female literacy served as the threshold of women for bringing in fertility decline in various districts of India. There had been significant progress in literacy rate of the district between 2001 and 2011 from 53.1 to 67.4 per cent. This was mainly due to significant progress in literacy rate of both males and females, with the females (16.38%) outdoing males (12.47%). As a result there was a slight reduction in male female literacy gap from 27.45 to 23.54 per cent. Though the district literacy rate was marginally better than that of the nation, it was far behind when compared to the state getting 23<sup>rd</sup> rank among the 30 districts in 2011. So there is so much need to invest in this district to improve the educational status. Particular attention is needed to improve female literacy as the male-female literacy gap is very high. It is heartening to observe that Thiruvannamalai is fast catching up with the State through higher growth rate. There is significant rural urban gap in literacy, particularly so far female literacy. But this gap is narrowing due to higher growth rate of literacy in the rural areas between 2001 and 2011.



## **Literacy by block and gender**

There had been a very significant rise in the literacy rates in all the blocks between 2001 and 2011, particularly so with Jawadhu Hills, Polur, Thurinjiapuram and Chengam. But there are wide variations across blocks and across social grouping in the district. There were as many as nine blocks exhibiting higher literacy rate than the district as a whole during 2011. First five blocks performing relatively better with respect to literacy rate are Arni, Thiruvannamalai, West Arni, Cheyyar and Vandavasi. Jawadhu Hills was the worst performing block with only 38 per cent literacy rate. This was followed by Thandrampet, both standing apart from other blocks in terms of very low literacy. The other three blocks performing poor in terms of literacy rate in the year 2011 are Kalasapakkam, Chengam and Pudupalayam. The literacy rates of all the blocks were lower than the state average except Thiruvannamalai and Arni.

The female literacy rate in Jawadhu Hills was also found to be very poor (Just 26.22%). Female literacy in the rest of the blocks was in the range of 46 to 64 per cent. All the blocks had female literacy lower than that of the state. Considerable positive changes in female literacy rates in 2011 were observed in the blocks of Polur, Thurinjiapuram and Chetpet. A positive feature in this district was that the male-female literacy gaps had narrowed in all the blocks except Jawadhu Hills between 2001 and 2011. All the blocks had higher male-female literacy than that of state. The lowest male-female literacy gap which was observed in the block of Thiruvannamalai was also above the female literacy.<sup>26</sup>

**Table 3.28: Status of Literacy in Thiruvannamalai District, 1991-2011**

Block / Urban	Literacy			Male Literacy			Female Literacy			Changes in Total Literacy Rate (2001-2011)			Male-female Literacy gap		
	1991	2001	2011	1991	2001	2011	1991	2001	2011	M	F	T	1991	2001	2011
Vembakkam	52.66	67.96	69.08	68.17	81.25	82.31	37.00	54.66	55.31	1.06	0.65	1.71	31.17	26.59	27.00
Cheyyar	58.62	70.85	72.64	72.30	82.44	83.56	44.84	59.37	61.39	1.12	2.02	3.14	27.46	23.07	22.17
Anakkavur	54.11	66.83	69.11	69.13	79.95	80.92	39.15	53.71	55.26	0.97	1.55	2.52	29.98	26.24	25.66
Pernamallur	53.37	67.46	71.82	70.06	81.42	82.63	36.97	53.87	54.71	1.21	0.84	2.05	33.09	27.55	27.92
Vandavasi	56.63	70.75	75.26	70.16	81.64	82.46	42.93	59.89	60.24	0.82	0.35	1.17	27.23	21.75	22.22
Thellar	54.88	67.47	69.38	69.80	80.13	81.08	39.82	54.69	56.72	0.95	2.03	2.98	29.98	25.44	24.36
Arni	62.28	74.42	76.21	76.22	85.34	85.97	48.34	63.62	65.02	0.63	1.40	2.03	27.89	21.72	20.95
West Arni	59.29	71.04	74.67	74.84	83.33	84.53	43.91	58.97	60.86	1.20	1.89	3.09	30.93	24.36	23.67
Polur	53.56	70.15	75.84	68.15	82.28	83.04	38.96	58.19	60.21	0.76	2.02	2.78	29.19	24.09	22.83
Kalaspakkam	47.24	62.70	65.24	61.88	76.20	78.86	32.29	49.17	52.13	2.66	2.96	5.62	29.59	27.03	26.73
Chetpet	52.57	67.96	70.98	67.70	81.02	82.05	37.34	55.22	57.28	1.03	2.06	3.09	30.36	25.80	24.77
Thurinjapuram	47.64	64.55	66.42	62.55	77.54	78.76	32.27	51.48	54.02	1.22	2.54	3.76	30.28	26.06	24.74
Kilpennathur	53.42	68.42	75.02	66.52	80.36	82.03	40.14	56.78	58.31	1.67	1.53	3.2	26.38	23.58	23.72
Thiruvannamalai	61.92	74.05	77.62	73.59	83.70	83.98	49.97	64.31	66.09	0.28	1.78	2.06	23.63	19.39	17.89
Pudupalayam	44.46	60.45	64.37	57.17	72.57	75.26	31.56	48.25	51.34	2.69	3.09	5.78	25.61	24.32	23.92
Chengam	44.72	61.64	63.23	56.00	72.04	73.68	33.04	50.99	52.16	1.64	1.17	2.81	22.96	21.05	21.52
Thandrampet	42.24	57.82	62.27	53.93	69.37	72.05	30.23	46.00	48.03	2.68	2.03	4.71	23.70	23.37	24.02
Jawadhu Hills	18.98	38.17	40.56	26.33	49.51	54.01	11.07	26.22	30.28	4.50	4.06	8.56	15.26	23.29	23.73
<b>District</b>	<b>53.10</b>	<b>67.39</b>	<b>74.72</b>	<b>66.70</b>	<b>79.17</b>	<b>83.73</b>	<b>39.25</b>	<b>56.63</b>	<b>65.71</b>	<b>12.47</b>	<b>16.38</b>	<b>14.29</b>	<b>27.45</b>	<b>23.54</b>	<b>18.02</b>
<b>State</b>	<b>62.70</b>	<b>73.50</b>	<b>80.33</b>	<b>73.80</b>	<b>82.30</b>	<b>86.81</b>	<b>51.30</b>	<b>64.60</b>	<b>73.86</b>	<b>8.50</b>	<b>13.30</b>	<b>10.80</b>	<b>22.50</b>	<b>17.70</b>	<b>12.95</b>

**Source:** Various issues of Census of India report, 1991-2011.

### **Literacy rate by social grouping**

While SC social group was lagging behind the overall literacy rate by a small margin, ST social group fares very badly when compared to the district average and in general also. Targeted attention in the coming years on educating children from these social groups is very much essential to bring significant change in the situation. Peculiarly the male female literacy gap is lower in the case of SC and ST than that of district average.

There were 2.84 lakh illiterate persons living in the district in the age group of 15-35 of which 1.57 lakhs were females in 2011. High number of illiterate persons was found in the block of Thiruvannamalai followed by Thandrampet, Chengam and Polur. Among the urban bodies, largest portion of illiterate persons more than 25000 were found in the block of Thiruvannamalai during the year of 2011. This age group is the most productive age group of the district. So proper care need to be taken to attract them to the adult education centres. The details of the status of Literacy among SC & STs in the study area are given in Table 3.29.

There were 11 colleges for general education in Thiruvannamalai district catering to around 7000 students in 2010-011. Out of these eleven colleges two of them were women's colleges. There were 6 engineering colleges in the district housing 7612 students in 2010-11. There was no university in this district and no other professional colleges offering courses like Agriculture, Veterinary, Medical (except one Nursing College in Vandavasi) and Law in this district except engineering. There were eight polytechnic colleges and 12 ITT's in the district in 2010-11.

**Table 3.29: Status of Literacy among SC & ST in Thiruvannamalai, 2011**

Block / Urban	SC			ST			Male-female literacy gap	
	M	F	T	M	F	T	SC	ST
Vembakkam	74.75	50.29	62.52	57.69	38.81	48.25	24.46	18.88
Cheygar	75.84	54.62	65.18	58.53	42.15	50.30	21.22	16.38
Anakkavur	73.55	49.41	61.48	56.76	38.13	47.45	24.14	18.63
Pernamallur	74.91	49.56	62.06	57.81	38.25	47.90	25.35	19.56
Vandavasi	75.11	55.10	65.09	57.96	42.52	50.23	20.01	15.44
Thellar	73.72	50.31	62.07	56.89	38.83	47.90	23.41	18.06
Arni	78.51	58.53	68.47	60.59	45.17	52.84	19.98	15.42
West Arni	76.66	54.25	65.36	59.16	41.87	50.44	22.41	17.29
Polur	75.70	53.53	64.54	58.42	41.31	49.81	22.17	17.11
Kalasapakkam	70.10	45.25	57.68	54.10	34.91	44.52	24.86	19.19
Chetpet	74.54	50.80	62.52	57.52	39.21	48.25	23.74	18.31
Thurinjapuram	71.34	47.36	59.39	55.05	36.55	45.83	23.98	18.50
Kilpennathur	73.93	52.24	62.95	57.06	40.31	48.58	21.69	16.75
Thiruvannamalai	77.00	59.17	68.13	59.43	45.66	52.58	17.83	13.77
Pudupalayam	66.76	44.39	55.61	51.52	34.26	42.92	22.37	17.26
Chengam	66.28	46.91	56.71	51.15	36.20	43.76	19.37	14.95
Thandrampet	63.82	42.32	53.19	49.25	32.66	41.05	21.50	16.59
Jawadhu Hills	45.55	24.12	35.12	35.15	18.62	27.10	21.43	16.53
<b>District</b>	72.84	51.18	62.00	56.21	39.50	47.85	21.66	16.71

**Source:** Census of India 2011, Tamilnadu Series.

It can be seen that while the enrolment of girl students was more or less equal in the colleges for general education, their presence was very poor in the technical education colleges. Considering that major proportion of students going out of the district for education particularly for professional education would be males, the overall presence of females from this district in higher education seems to be quite low.<sup>27</sup> This would have significant adverse impact over the gender aspects of well being by worsening the relative position of women with respect to men.

**Table 3.30: Data on Higher Educational Institutions in Thiruvannamalai District, 2011**

Colleges for general education						
S.No.	Name of the institution	No. of institution	Students			Teachers
			Boys	Girls	Total	
1	Govt. Colleges	3	2342	1823	4165	151
2	Aided Colleges	0				
3	Self Financial Aided Colleges	8	1462	1341	2803	231

**Source:** 1) District Statistical Handbook of Thiruvannamalai, 2011  
2) Dept. of Economics and Statistics, District Collectorate, Thiruvannamalai District

**Table 3.31: Colleges for Professional Education in Thiruvannamalai District, 2011**

Name of the institution	No. of institution	Students			Teachers
		Boys	Girls	Total	
Arunai Engg. College, Thiruvannamalai	1	2342	382	2724	131
Kamban Engg. College, Thiruvannamalai	1	192	49	241	30
SKP Engg. College, Thiruvannamalai	1	720	190	910	49
Balaji Chockalingam Engg. College, Arni	1	431	115	546	95
Arulmighu Meenachi, Vadamavanandal	1	1625	401	2026	117
Thiruvalluvar College of Engg.&Tech Vadamavanandal	1	980	185	1165	119
<b>Total</b>	<b>6</b>	<b>6290</b>	<b>1322</b>	<b>7612</b>	<b>541</b>
Polytechnic	8	2932	230	3162	163
ITI	12	560	35	595	45
<b>Total</b>	<b>20</b>	<b>3492</b>	<b>265</b>	<b>3757</b>	<b>208</b>

**Source:** Same as Table 3.30

Infrastructural facilities play a crucial role in facilitating attainment of various facets of human development. The impact of investment on different kinds of infrastructure varies widely. It is important for the policy makers to

make an informed choice as the resources are limited. As the figure given below indicates the impact of investment on roads on poverty reduction was much higher than conventionally known investment priorities like health, education and irrigation in India. As the infrastructure has such impact on human development it is important to understand current level of infrastructure in the district. The infrastructure can be either private like house or public in nature. Major public infrastructural facilities are road and telecommunication, electrification. Public Distribution System and banking services. Social infrastructure like self help groups (SHG) also play a crucial role in achieving human development through building social capital and taking up economic activities. This chapter focuses on the status of these types of infrastructure and their implication on human development.

### **Road Infrastructure**

As indicated above roads play very many roles in actualizing general development and so human development. The analysis of block wise road infrastructure indicates that there was wide level of disparity among the blocks of Thiruvannamalai district in presence of road infrastructure in 2003-04. The block of Polur had the lowest road infrastructure among all the blocks, closely followed by the block of Jawadhu Hills. In addition to this, the blocks of Thandrampet and Pudupalayam also exhibited low level of road infrastructure. On the contrary, the highest surfaced road length per 100 square Km of geographical area was observed in the block of Thuringapuram (84.96 Km.) followed by the block of Thiruvannamalai. Specific focus need to be given to improved road infrastructure in Polur, Jawadhu hills, Thandrampet and Pudupalayam.

**Table 3.32: Length of Road per 100 Square Km. of Geographical Area in Thiruvannamalai, 2011**

(in Kms.)

<b>Blocks</b>	<b>Surfaced Road</b>	<b>Unsurfaced Road</b>	<b>Total</b>
Anakkavur	37.58	2.92	40.50
Arni	64.03	17.44	81.45
Arni (West)	55.32	25.54	80.86
Chengam	43.30	7.75	51.05
Chetpet	70.30	0.00	70.30
Cheyyar	71.91	19.18	91.09
Jawadhu Hills	9.21	27.07	23.59
Kalaspakkam	45.58	35.07	80.65
Kilpennathur	52.74	29.61	82.35
Pernamallur	6.09	0.00	6.09
Polur	38.68	47.07	85.75
Pudupalayam	29.62	17.49	47.11
Thandrampet	20.43	10.14	30.57
Thellar	57.22	20.70	77.92
Thurinapuram	84.96	21.43	106.40
Thiruvannamalai	74.35	29.59	111.56
Vembakkam	39.09	12.76	51.85
Wandiwash	55.26	23.94	79.20
<b>District</b>	<b>41.93</b>	<b>19.12</b>	<b>59.58</b>

**Source:** Same as Table 3.30

### **Electrification**

About 98.69 per cent of total villages in the district of Thiruvannamalai had been electrified in 2010-11. Another 14 villages in this district need to be electrified to achieve the 100 per cent electrification of the villages in Thiruvannamalai. All the villages of twelve blocks in this district have been electrified completely. The lowest percentage in terms electrification of

villages was observed in the block of Thuringapuram (89.55%). In this block, another seven villages are to be electrified. Two villages each in the block of Chetpet, Kilpennathur and Polur are to be electrified. On the other, one village each in the blocks of Pernamallur and Thellar are to be connected through electrification. So, in general on this front the district had fared well and with minimum investment it can easily claim to be a 100 per cent electrified district.

**Table 3.33: Status of Electrification in the Blocks of Thiruvannamalai, 2011**

<b>Blocks</b>	<b>Percentage of Villages Electrified</b>	<b>Number of Unelectrified Villages</b>
Anakkavur	100	0
Arni	100	0
Arni (West)	100	0
Chengam	100	0
Chetpet	96.83	2
Cheyvar	100	0
Jawadhu Hills	100	0
Kalasapakkam	100	0
Kilpennathur	96.92	2
Polur	96.43	2
Pernamallur	98.51	1
Pudupalayam	100	0
Thandrampet	100	0
Thellar	98.55	1
Thuringapuram	89.55	7
Thiruvannamalai	100	0
Vembakkam	100	0
Wandiwash	100	0
<b>District</b>	<b>98.69</b>	<b>14</b>

**Source:** Department of Tamil Nadu Electricity Board, Thiruvannamalai District.



## Electrification of Individual Houses

Lack of electrification of individual house is also a very good indicator of various dimensions of poverty as it negatively influences the current living condition of the household and also the future well being through hampering education of the children. During 2001, nearly 76 per cent of total households were electrified in the district and this had been a sharp rise over that of the 1991 situation (51.51). Among the taluks, Chengam exhibited the lowest percentage of electrified households (69.37%) in 2001. As one fourth of the total households lived in unelectrified houses in the district, serious efforts are needed to make coverage of electrification 100 per cent.

**Table 3.34: Distribution of Households According to the Sources of Light, 2011**

Taluk	Source of lighting (%)					
	Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting
<b>Taluks</b>						
Arni	83.88	15.43	0.14	0.15	0.07	0.33
Cheyar	80.38	19.21	0.13	0.08	0.04	0.18
Vandavasi	78.65	20.66	0.14	0.03	0.04	0.48
Polur	72.91	26.54	0.16	0.04	0.03	0.31
Chengam	69.37	30.12	0.30	0.04	0.02	0.16
Thiruvannamalai	73.53	25.92	0.16	0.04	0.06	0.30
<b>District/State</b>						
Thiruvannamalai	<b>75.69</b>	<b>23.75</b>	<b>0.18</b>	<b>0.06</b>	<b>0.04</b>	<b>0.29</b>
<b>TAMIL NADU</b>	<b>78.18</b>	<b>21.08</b>	<b>0.24</b>	<b>0.04</b>	<b>0.07</b>	<b>0.38</b>

**Source:** Census of India, 2011

## **Postal Services**

The population served per post office doing postal business alone was abysmally high in the block of Chetpet. The data need to be verified to validate this inference. The concentration of post offices was also low in the blocks of Arni, Pudupalayam and Wandiwash (Vandavasi). Apart from this, the post offices in the blocks of Chengam, Cheyyar, Thuringapuram and Thiruvannamalai served more population per post office than the district average.<sup>28</sup> The lowest number of population was served in the block of Jawadhu Hills closely followed by the block of Vembakkam.

The population served per post and telegraph office was the highest in the block of Arni (164405 persons per P & T office) followed by Wandiwash (Vandavasi) and Cheyyar. On the other hand, less number of population was served per post and telegraph office in the blocks of Thiruvannamalai and Kilpennathur. The population served per telegraph office in almost all the blocks was very high except in the blocks of West Arni (20628) and Kilpennathur (27660). Courier services have come up on a large scale and communicating through telephone has also become cheaper in the recent years. Further the financial services of post offices have become predominant than that of letter and telegraph services. So, it is time to review the role played by post offices in connecting people and take necessary measures to make them more relevant. As postal network has wide presence in the district they can be made to function as multi service points in collaboration with other entities.

**Table 3.35: Status of Population Served per Postal/Telegraph Offices in the Blocks of Thiruvannamalai, 2011**

<b>Blocks</b>	<b>Post offices (doing Postal business alone)</b>	<b>Post and Telegraph Office</b>	<b>Telegraph Office</b>
Anakkavur	4452	17807	
Arni	9134	164405	164405
Arni (West)	4126	20628	20628
Chengam	5635	36064	
Chetpet	34233	17117	51350
Cheyyar	4913	122819	
Jawadhu Hills	2407	43320	
Kalaspakkam	4649	26729	106916
Kilpennathur	3815	5823	27660
Polur	3488	12072	78470
Pernamallur	3410	85254	
Pudupalayam	8237	53544	
Thandrampet	4121	38116	
Thellar	3509	32753	
Thurinjapuram	6203	NA	55824
Thiruvannamalai	5756	5756	135268
Vembakkam	2654	20794	124761
Wandiwash	7779	132243	132243
<b>District</b>	<b>4817</b>	<b>18249</b>	<b>106889</b>

**Source:** Same as Table 3.30

### **Telephone Services**

Home telephone was considered a household amenity of the affluent a decade earlier. But now it has attained a status of essential amenity even among low income classes indicating the need for connectivity. This became very visible once low investment mobile telephone services became available. It is one of the fastest penetrating technologies even in the rural

areas. Telephones that way do not stop with serving as communication devices but go beyond that by serving many other purposes like a tool for livelihood.<sup>29</sup>

On analyzing the population served per telephone in use, it was observed that it was the highest in Jawadhu Hills indicating poor connectivity. There was only one telephone against 722 persons in this block. The concentration of telephones were also very less in the blocks of Vembakkam, Anakkavur, Pudupalayam and Pernamallur. The availability of telephones was relatively higher in the blocks of Arni, Cheyyar, West Arni and Wandiwash (Vandavasi).

A wide variation in terms of availability of PCOs was observed among the blocks of Thiruvannamalai. There was one Public Call Office (PCO) for every 1698 persons in the district. But the concentration of PCOs was very less in the block of Pudupalayam (more than 13000 persons per PCO). It was also lower in the blocks like Vembakkam, Jawadhu Hills, Pernamallur, Kalasapakkam, etc. The concentration of PCOs was the highest in the block of Arni (571) followed by Vandavasi and Thuringapuram.<sup>30</sup>

The availability of STD booths was the highest in the blocks of Arni (587 persons/STD booth) followed by Vandavasi (837). On the contrary, it was the lowest in the block of Anakkavur where more than 23000 persons were served by each STD booth. Other blocks exhibiting higher numbers of persons served per STD booth were Chengam and Pernamallur. Specific reasons for low connectivity need to be identified and necessary steps to be taken up.

**Table 3.36: Population Served per Telephone Facility in the Blocks of Thiruvannamalai, 2011**

<b>Blocks</b>	<b>Telephone in use</b>	<b>Public Call Office</b>	<b>STD Booth</b>
Anakkavur	334	1295	23743
Arni	14	571	587
Arni (West)	30	1001	1021
Chengam	50	1443	7213
Chetpet	60	1975	NA
Cheyyar	21	2118	999
Jawadhu Hills	722	5415	NA
Kalasapakkam	39	2608	NA
Kilpennathur	44	2012	1165
Polur	35	1706	NA
Pernamallur	166	3707	6558
Pudupalayam	232	13386	NA
Thandrampet	80	2541	1930
Thellar	95	2457	2729
Thurinapuram	59	846	NA
Thiruvannamalai	NA	NA	NA
Vembakkam	552	6931	3669
Wandiwash	29	806	837
<b>District</b>	<b>48</b>	<b>1698</b>	<b>2370</b>

**Source:** Same as Table 3.30

Public Distribution System (PDS) is an important state intervention to ensure food security particularly for the poor. It aims at price stability attempt to make available a few selected articles of mass consumption at reasonable prices. Effectiveness of PDS depends on access, purchasing capacity of the people and quality of implementation.<sup>31</sup> As data was available only for access to PDS.

The analysis of population served per fair price shop revealed that it was the highest in the block of Arni (3425) followed by Thiruvannamalai (2973) and Jawadhu Hills (2888). On the other hand, the lowest numbers of persons served per fair price shop was observed in the Block of Anakkavur (1113) followed by Pernamallur (1152) and Vembakkam (1211). Reasons for difference in access need to be found for taking measures to correct the situation.

**Table 3.37: Population Served per Fair Price Shop (PDS), 2011**

<b>Blocks</b>	<b>No</b>
Anakkavur	1113
Arni	3425
Arni (West)	1587
Chengam	2073
Chetpet	1467
Cheyyar	1575
Jawadhu Hills	2888
Kalasapakkam	1445
Kilpennathur	1676
Polur	1938
Pernamallur	1152
Pudupalayam	2059
Thandrampet	1733
Theallar	1276
Thurinjapuram	1744
Thiruvannamalai	2973
Vembakkam	1211
Vandavasi	1593
<b>District</b>	<b>1707</b>

**Source:** Department of Public Distribution (Civil Supplies), Thiruvannamalai District, 2011

## Banking

The data on population served per commercial bank branch shows that the lowest number of persons was served in the block of Chetpet (12800). Comparatively less number of persons was also served by per bank branch in the blocks of Pernamallur, Thiruvannamalai and Thurinapuram indicating that banking network was much better in these areas. But the concentration of bank branches in terms of population was very less in the block of Chengam where one bank branch was available against more than 60000 persons. It was followed by the blocks of Jawadhu Hills and Vandavasi. Only one bank branch was available in the block of Jawadhu Hills.<sup>32</sup>

**Table 3.38: Population Served per Commercial Bank Branch, 2010-2011**

Blocks	Number of Commercial Bank Branches	Population Served per Commercial Bank Branch
Anakkavur	3	23743
Arni	8	20551
Arni (West)	5	20628
Chengam	3	60107
Chetpet	8	12838
Cheyyar	5	24564
Jawadhu Hills	1	43320
Kalaspakkam	4	26729
Kilpennathur	5	22128
Polur	8	19617
Pernamallur	5	17051
Pudupalayam	3	35696
Thandrampet	6	25411
Thellar	5	19652
Thurinapuram	6	18608
Thiruvannamalai	15	18036
Vembakkam	5	24952
Wandiwash	4	33061
<b>District</b>	<b>99</b>	<b>22763</b>

**Source:** District Credit Plan, 2010-11, Thiruvannamalai, Indian Bank, Lead District Office, Thiruvannamalai.

More than availability, utilization gives a better picture of access to infrastructure. The data on households availing banking services indicates that the overall level of utilization of banking services was poor both in the state and the district. The percentage of households availing banking services in the district was marginally lower than that of the state. The share of households availing bank services in taluks was closer to the district average except in Arni. The banks should take necessary steps to reach the currently unreached households.<sup>33</sup> Initiatives are needed in two directions, one is making available financial products that are attractive to large section of the population and the other is to change institutional forms of delivering banking service.

**Table 3.39: Percentage of Households Availing Banking Services, 2011**

Taluk	Households (No)	Percentage of households availing banking services
<b>Taluks</b>		
Arni	58,173	15.89
Cheyyar	71,196	22.52
Vandavasi	72,402	19.26
Polur	88,810	19.25
Chengam	87,096	19.93
Thiruvannamalai	104,720	20.69
Thiruvannamalai (Mpty.)	24,993	26.80
<b>District/State</b>		
<b>Thiruvannamalai</b>	<b>482,397</b>	<b>19.77</b>
<b>TAMIL NADU</b>	<b>14,173,626</b>	<b>22.82</b>

**Source:** Census of India, 2011-Tamil Nadu series

Population served per bank branch in Thiruvannamalai district was nearly double to that of state indicating that there is need for more number of



branches. Furthermore, it is observed that the per capita deposit as well as credit were very meager when compared to the state. On the other hand, the district fared well in terms of percentage of rural bank branches to total branches and percentage of agricultural advance to total advance. Taking into account the wider presence of SHG's in rural areas and routing of bank loans through them, financial infrastructure can be taken as reaching closer to the desired level. As the irrigation and financial infrastructure are comparatively better the reasons for poor performance of agriculture need to be found elsewhere.

**Table 3.40: Indicators of Banking Development in Thiruvannamalai District, 2010-2011**

Items	Thiruvannamalai	Tamil Nadu
Population served per bank office	28597	15779
Per capita deposits (Rs.)	3758	275149
Per capita credit (Rs.)	2449	144158
Percentage of rural bank branches to Total branches	62.6	37.64
Agriculture advance (Rs. Crores)	259.81	1038.50
Percentage of Agriculture advance to total advance	56.74	15.36

**Source:** Same as Table 3.14

Though this comparison is slightly out of the mark because Tamil Nadu and Thiruvannamalai are very much different in terms of nature of banking operation. Banking operation in Tamil Nadu could be wider in nature in terms of ability of clients and portfolios. Thiruvannamalai is still predominantly a rural district and agriculture would be the major portfolio. Still the inference can be taken as valid to a large extent.<sup>34</sup>

## Insurance

Insurance plays a major role in protecting livelihoods from sudden unexpected losses and thereby giving continuity to livelihoods even after the incidence of accidents and other such situations. It is also an instrument any individual or business can use strategically to protect themselves in a proactive manner. The situation in Thiruvannamalai typically reflects the situation in rural India. In the district, the penetration had been very poor as depicted by the data given below. The number of policies was nowhere closer to the need. Even the number of policies taken does not reflect the reality as many policy holders enrolled in insurance for income tax reasons. As the demand was low the number of branches was also low. Insurance education is very much essential to improve the penetration of various insurance products.<sup>35</sup>

**Table 3.41: Insurance Penetration in Thiruvannamalai in 2011**

Name of the Insurance	No of Branches	Policies Issued	Sum Assured (Rs. in Crores)	No of Beneficiaries	Amount paid as Compensation (Rs. In Crores)
LIC	4	50399	300.46	26525	16.83
PLI Rural	447	7043	29.88		
Urban	1	632	5.59		
United Insurance	1	9762	2.57	9762	2.47
New India Assurance	1	7246		7246	0.82

**Source:** Same as Table 3.30

## **Self Help Group (SHG)**

Self help groups were proven to be good vehicle for organizing poor particularly women to address micro credit needs, gender issues and social issues. It is one of the effective low cost development interventions which can be simultaneously used for poverty reduction, women empowerment and empowerment of vulnerable social groups. Due to its proven success, state government has been promoting it for more than a decade and most of the state projects were implemented through them. Many development organizations either with or without the support of state has been promoting SHGs for various related objectives. As SHGs contribute significantly for human development, it is important to look into their status in the district. As data was available for only financial support provided through SHGs, it is only presented.

Total numbers of SHG's running in the district of Thiruvannamalai in 2011 were 11555. In the rural area the highest number of SHG's was observed in the block of Kalasapakkam (729) closely followed by Thiruvannamalai (722), Vandavasi (684), Polur (681) and Chengam (665). On the other hand, the lowest numbers of SHG's were noticed in the block of Jawadhu Hills (246), followed by Anakkavur (39) and Pudupalayam (425). About 81 per cent SHG's completed more than 6 months and about 84 per cent of them were eligible to get finance. In the rural area the highest percentage of eligible SHG's was observed in the block of Arni (96.10%) followed by Thiruvannamalai (92.30%), Kilpennathur (89.92%) and

Thandrampet (89.65%) indicating that most of the SHGs were functioning well.<sup>36</sup>

Nearly 80 per cent of total eligible SHG's had been linked for credit in the district of Thiruvannamalai in 2005. Linkage performance was particularly good in Jawadhu Hills. Comparatively more share of eligible SHG's had been linked in the blocks of Thandrampet (92.37%), Thiruvannamalai (88.99%) and Vembakkam (86.12%). On the contrary, the lowest share of credit linked SHG's among the SHG's was observed in the block of Pudupalayam (58.22%) followed by Arni, West Arni and Kalasapakkam.<sup>37</sup> The major sources of credit to SHGs were from commercial banks, THADCO, SGSY and RMK.

One of the main indicators of the extent to which SHGs serve for poor is the level of coverage of poor among its members. More than 90 per cent SC/ST habitation had been covered under SHG's in this district as reported in the year of 2005. The maximum percentage of coverage among all the blocks was observed in the block of West Arni. In this block, more than 96 per cent of total SC/ST habitations had been covered. In the same way, considerable number of SC and ST families was covered through SHG's with members only from their community. Coverage of BPL families belonging to these vulnerable social groups was also very significant indicating that SHGs in Thiruvannamalai were aiming to serve them.

**Table 3.42: Coverage of SC/ST Habitations by SHGs in Thiruvannamalai (Rural), 2011**

Sl.No.	Particulars	
1	Coverage of SC/ST habitations	93%
2	Exclusive SC SHGs	2508
3	Members in Exclusive SC SHGs	42578
4	Exclusive ST SHGs	325
5	Members in Exclusive ST SHGs	5058
6	Coverage of SC/ST BPL families	90.49

**Source:** P.O. of Mahalir Thittam, Thiruvannamalai

### Housing

Housing condition reflects various dimensions of well being and has significant influence on human development. Houses mean very many things to people like identity, source of self esteem, working place, bankable asset, etc. As per 2011, only 50 per cent of the households were living in good/permanent house. The situation was more or less same in three taluks. The situation was considerably better in Arni Taluk and it was relatively worse in Vandavasi and Chengam taluks. The share of permanent houses in the district was considerably lower than that of the state indicating comparatively lower living condition and asset status in Thiruvannamalai than many other districts. Another dimension of housing situation is availability of living space. This indicated again various dimensions of well being like privacy. Share of households living in one room house or without exclusive room declined from 61 per cent in 2001 to 55.7 per cent in 2011 indicating the living condition had not changed much. In Tamil Nadu culture aspiration for having a good house is high and comes next only to meeting

basic needs. Majority of households being not able to improve their house indicated a great sense of inability. The share of households living in one room or without exclusive room in the state was marginally lower than that of the district. The situation was considerably more pathetic in urban areas than rural areas both in the state and in the district.

**Table 3.43: Distribution of Households According to the Condition of the Houses in Thiruvannamalai District, 2011**

Taluk/District/ State	Type of census houses (%)				Unclassifiable
	Permanent	Semi Permanent	Temporary		
			Serviceable	Non Serviceable	
<b>Taluk</b>					
Arni	62.77	13.59	20.75	2.88	0.01
Cheyar	47.36	11.12	39.23	2.30	0.00
Vandavasi	44.25	9.01	44.25	2.48	0.00
Polur	50.54	11.03	35.57	2.86	0.00
Chengam	41.87	10.75	44.51	2.87	0.00
Thiruvannamalai	51.18	12.94	32.90	2.97	0.00
<b>District/State</b>					
<b>Thiruvannamalai</b>	<b>49.18</b>	<b>11.41</b>	<b>36.66</b>	<b>2.75</b>	0.00
<b>TAMIL NADU</b>	<b>58.52</b>	<b>18.15</b>	<b>19.68</b>	<b>3.63</b>	<b>0.02</b>

**Source:** Census of India, 2011

### **Social Vulnerability**

Focused efforts are being taken to address child labour and disability through specific schemes in the district. The district administration and other actors need to be appreciated for these concerned efforts. In the same way focused efforts were also taken up to improve the social and economic situation of SC and ST social groups. There has been considerable improvement in terms of social and economic development in these social

groups in the recent years. The efforts to improve women situation in the district through SHGs is also appreciable. The gap between male and female regarding parameters related to elementary education has narrowed very significantly in the recent years.

Many issues related to social vulnerability still remains prominent in the district. While there was significant improvement in the economic situation of SC social group caste based discrimination is still in vogue in many parts of the district. This is expressed through atrocities against them and through efforts to thwart them from sharing political power. Though focused efforts were made regarding ST social group, they are far behind the rest of the society in terms of economic and social development. They seem to be in a time warp and are about ten years behind the rest of the society in terms of development.<sup>38</sup>

Discrimination based on caste faced by SC social group is different from ST social group. Even within the SC social group there is lot of difference between various castes. This is the case even with economic development. So it is time to go beyond looking at SC as a homogeneous social group for policy purposes and to look at them as a group of communities with different level of social economic vulnerability.

Social vulnerability is an important dimension of human development. There are various dimensions of social vulnerability.<sup>39</sup> The major forms are vulnerability due to gender and caste discrimination. The other forms of social vulnerability are disability, child labour and old age dependency.

Some of the emerging social vulnerability areas are HIV/AIDS patients and women headed households. Social vulnerability is largely a result of social norms and taboos like patriarchal attitude and casteism.<sup>40</sup> It is also a result of poor economic development characterized by remnants of feudalism and migration. Economic development by itself will not solve this issue and in fact old age problems increase with economic development as it is accompanied by demographic transition.<sup>41</sup>

### **Forest and Hills**

One sixth of the area of this district is covered by reserve forest and hills which is part and parcel of Eastern Ghats under Javvadhu Hills. The important hills in this district are Thiruvannamalai (2668 ft 79.80 MSL), Javvadhu hills (2500 ft MSL) and Kailasagiri (2743 ft MSL).

### **Soil**

The red loamy soil is predominantly found here. However Polur taluk has concentration of red series loam. The district has also different types of soils such as ferruginous loamy and sandy loamy however black series loam is found in tanks and river beds of Cheyyar and Vandavasi taluks.

### **Climate and Rainfall**

The general climate is tropical. The district receives rainfall from North East and South West monsoons. The total rainfall during 2002-2003 in this district was 1028.7 mm.<sup>42</sup>



## **River**

There is no perennial river in the district. Cheyyar, Thenpennai, Kamandala Naganathi are only seasonal. SATHANUR DAM is constructed across Thenpennai river in Chengam taluk among Chennakesava Hills.

## **Cropping Pattern**

Paddy, Groundnut, Sugarcane, Millets and pulses are the major crops. During the current fasli 1413, 0.438 L/Hect of paddy, 0.12 L/Hect of sugarcane, 0.312 L/Hect of groundnut, 0.11 L/Hect of pulses are cultivated.

## **Transport and Communication**

93 Km of meter gauge rail transport in the Katpadi and Villupuram segment are utilised for both passenger and goods transportation as far as road transport nearly 1600 km of various kinds of roads are used. The district has two head post offices, 73 Sub Post Offices, 444 branch Post Offices besides one Telegraphic Office, 2 Telephone divisions and nearly 56643 phone connections.<sup>43</sup>

## **Animal Husbandry**

The district is the leader in white and brown revolution among the districts in Tamil Nadu. Two milk chilling plants are in operation at Thiruvannamalai and Anakkavoor, providing approximately 2.03 L/Lit per day, in both flush and lean season.

## **Industries**

This district is industrially backward. The SLS cotton spinning mill is the only major industry and in Annakkavoor and Polur, sugar mills are functioning. However medium and small scale industries as well as cottage industries, such as modern rice mills, weaving factories, cotton, silk and mat weaving, coir manufacturing and beedi manufacturing are flourishing here. The district is enriched in mineral deposits such as black granites, multi-coloured granites, soap and magnesite deposits.

## **Banking**

To create the financial need a network of 141 commercial bank branches, 1 District central co-op banks, 157 primary Agri.Co-operative banks, 8 LDB and one branch of TNIIC are operated here.

## **Places of Worship and Tourist Places**

Thiruvannamalai is one of the most venerated places in Tamil Nadu. The main Deepam festival attracts devotees from far and wide throughout South India. It has historic places besides Thiruvannamalai, Arni, Vandavasi, Devigapuram connected to East India and French companies. It has a few well maintained tourist places such as Sathanur dam, Amirthy game park.<sup>44</sup>

In the late Chola period this district was ruled by the Cholan of Sambuvarayar having Padavedu near Arni as HQ. We can now find the fort and note along with a Shiva temple namely Kailasanathar in Arni town. On

the whole Thiruvannamalai is traditionally rich in Historic and spiritual values but lacks in industrial growth.

### **Administration of Thiruvannamalai District**

Thiruvannamalai district is one of the most venerated places in the State of Tamil Nadu in India. The district of Thiruvannamalai came into existence on the 30<sup>th</sup> September 1989 after the bifurcation of the formerly North Arcot District. The administration of district of Thiruvannamalai is having the District Collector as the head. The Collector of this district is assisted by a number of officers in carrying out the general work of administration. The district has two revenue divisions, seven revenue taluks, fifty two revenue firkas and one thousand sixty seven revenue villages. In the district of Thiruvannamalai there are four municipalities, eighteen panchayat unions, ten special panchayats and eight hundred and sixty village panchayats.<sup>45</sup>

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