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Tamil Nadu Household Panel Survey
Pre-Baseline District Report 2018-19



**Tamil Nadu Household Panel Survey (TNHPS)
Pre-Baseline Survey (PBS) District Report 2018-19**

Thoothukudi District

February 2024

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Summary of PBS Findings

Demographic Indicators

- Thoothukudi had a sample size of 4,999 households, of which 64.07 percent of households were from rural areas and 35.93 percent of households were from urban areas.
- Around 58 percent of the district population belongs to 6-45 years. Around 29 percent of the population was between 26-45 years of age. This indicates the demographic dividend in the district.
- The BC social group constitutes around 57 percent of the total households in the district. The SC category was the second largest at 22.71 percent.

Education

- The PBS estimates showed that the literacy rate in the district had increased from 86.16 percent (Census 2011) to 91.28 percent in 2018 and remain higher er than the state estimate (85.40%). The district was ranked third in the state.
- A gender gap in literacy rate at about 6.38 percent prevailed in the district in 2018, which was lower than the state gender gap of 10.82 percent. The gender gap was wider in rural areas at 8.38 percent than in urban areas at 4.86 percent.
- While more than 90 percent of the specified General and BC population in the district had received formal education, less than 85 percent of the SC and DNC population had done so.

Employment

- The share of unemployed population at 5.21 percent was higher in the district compared to the state estimates of 3.50 percent. Around 48 percent of the population was employed and the rest at 46.95 percent were not in the labour force.
- While more than two-thirds—about 67.49 percent—of the male population was employed, the female work participation was only 30.45 percent. This was still higher than the state PBS estimate of 29.96 percent.
- Around 64 percent of the female population was not in the labour force, and among these, majority of them (73.35%) were attending to domestic duties as a homemaker.

- Around 19 percent of the employed population in the district was engaged as casual labourer in the industrial sector. While about a quarter of the SC population was engaged in other casual labour, the highest percentage of the BC, MBC and General category population were self-employed in non-agriculture.

Land Ownership and Assets

- The percentage of households owning agricultural land in the district at 19.81 percent was similar to that at the state level estimates of 19.41 percent. A relatively higher percentage of SC and DNC households held agricultural land in the district compared to the other social groups.
- Almost 63 percent of the households that owned agricultural land in the district depended on rains alone for agriculture.
- Around three quarters—about 75.1 percent—of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares.
- Around 17 percent of the households in Thoothukudi district owned at least one agricultural, allied agricultural or fishing asset. This was lower than the state PBS estimate of 20.92 percent.
- The percentage of households owning at least one household asset in Thoothukudi district was higher than the state estimate. More than 90 percent of households belonging to all social groups owned at least one household asset.

Household Income

- The mean annual household income of Thoothukudi district was ₹1,37,060, which was lower than the state PBS estimate of ₹1,42,752; in the urban areas it was ₹1,78,134 and in rural areas it was ₹89,659. Thoothukudi was ranked ninth out of 32 districts with respect to this parameter.
- The mean income from salaried work (₹2,36,284) was the highest, and that from wage labour was the lowest (₹44,782).
- The Gini coefficient for income inequality in Thoothukudi district (0.553) was lower than the state estimate (0.563). Income inequality across households in rural areas of the district (0.513) was found to be lower than that of the urban areas (0.540).
- While more than 60 percent of the BC, MBC, and DNC households in Thoothukudi district expected an increase in their future income, more than one-third of the SC households expected their income to remain the same.

Housing

- Around 70 percent of the households in the district were living in their own house, which was lower than the state level estimate of 75.16 percent. In rural areas, around 88 percent of households lived in an own house whereas in urban areas it was just around 54 percent.
- Out of the households that lived in an own house in the district, 13.81 percent of houses were built under a government scheme. SC category households had the highest percentage of houses built under a government scheme in the district compared to other social groups.
- Around 70 percent of the households in the district were living in pucca houses, which was higher than the state level estimate of 63.42 percent. Only around five percent of households in the district were living in kutccha houses.

Drinking Water, Electricity, and Cooking Fuel

- The primary source of water for households in the district was piped water to the yard/plot in urban areas and public tap/standpipe in rural areas.
- Thoothukudi district witnessed an increase in electrification between 2011 and 2018, with an increase from 94.31 percent in 2011 to 98.37 percent in 2018.
- In 2011, firewood was the primary cooking fuel by households in the district at about 48.79 percent and LPG was being used by only about 43 percent of the households. But in 2018, this scenario had reversed and almost 83 percent of the households were using LPG.
- Around 30 percent of rural households and almost one-third of the SC households in the district still used firewood as the primary cooking fuel.

Sanitation

- The percentage of households with latrine within the premises of the house had increased from 49.98 percent in 2011 (Census, 2011) to 78.90 percent in 2018 in the district. The district was ranked eighth in the state among the 32 districts in terms of this indicator.
- Close to half of the SC households and around 37 percent of rural households in the district did not have access to a latrine within the house premises.
- The proportion of households in the district following open defecation had declined considerably from 46.08 percent in 2011 to 20.12 percent in 2018.

1. Introduction

1.1 Profile of Thoothukudi District

Thoothukudi district in Tamil Nadu was formed in the year 1986 from the bifurcation of Tirunelveli district. It is in the southern region of the state, with Virudhunagar and Ramanathapuram in the north, Bay of Bengal in the east, Bay of Bengal and Tirunelveli in the south, and Tirunelveli in the west.

According to Census (2011), Thoothukudi had a total population of 17.50 lakhs, accounting for approximately 2.43 percent of Tamil Nadu's total population, which was 7.21 crores. The district comprised 4.62 lakh households, with 50.09 percent residing in urban areas. The male population was 49.42 percent, and the female population was 50.58 percent. Thoothukudi demonstrated a child-sex ratio of 963.18 compared to the state average of 943.27. Within the social groups, 19.9 percent of the population belonged to the Scheduled Castes, while 0.3 percent belonged to the Scheduled Tribes. The literacy rate in Thoothukudi district stood at 86.16 percent, compared to the state's average of 80.09 percent. The male literacy rate was reported to be 91.14 percent, while the female literacy rate was reported to be 81.33 percent.

In the fiscal year 2018-19, Thoothukudi's Net District Domestic Product was ₹36,04,986 lakh, ranking at nineteenth among all districts. The district's per capita Net District Domestic Product was recorded at ₹1,91,088, ranking it at twelfth among districts and surpassed Tamil Nadu's average of ₹1,83,884 (Department of Economics and Statistics, 2023). In terms of sectoral distribution, the primary sector (agriculture and allied) contributes approximately 10 percent to its domestic income, while the secondary (industry) and tertiary (service) sectors contribute approximately 25 percent and 65 percent, respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu State Planning Commission (2017a), Thoothukudi ranked third in terms of the Human Development Index with a score of 0.852, pointing to an above-average performance in overall development. It ranked nineteenth in the Gender Inequality Index with a score of 0.083, which is a moderate score. In terms of the Child Development Index, the district ranked third with a score of 0.712, which reflects well upon the district's investment in the development of the younger generation. Additionally, Thoothukudi ranked twelfth in terms of the Multidimensional Poverty Index with a score of 0.49, considered to be a modest ranking.

Thoothukudi district showcases a strong economic stance, with impressive per capita income and significant industry and service contributions. The district's exceptional performance in human development and child welfare, along with its moderate ranking in the multidimensional poverty index, underscores its comprehensive progress and commitment to inclusive growth.

1.2 About the TNHPS and the Pre-Baseline Survey (PBS)

The Tamil Nadu Household Panel Survey (TNHPS) has been designed as a longitudinal survey, beginning with a Pre-Baseline Survey or the PBS—an extensive household listing activity—followed by a Baseline Survey (Wave 1) and subsequent periodic surveys (Wave 2, Wave 3 etc.). The TNHPS aims to analyze the patterns of change in various socio-economic indicators, including households' income, occupational structures and living conditions.

The PBS collected data on a comprehensive set of socio-economic indicators for the period 2018-19 with the results providing district-level estimates for these indicators, and informing the sampling design and the associated sampling frame for the first wave of the TNHPS. The PBS estimates act as an important intermediate database between Census 2011 and Census 2021 for the Government of Tamil Nadu. The PBS surveyed around 2,12,282 households in the erstwhile 32 districts of Tamil Nadu across 1,476 Primary Sampling Units (684 rural PSUs and 792 urban PSUs) in the state.

This report analyzes data from the PBS for the Thoothukudi district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Thoothukudi (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Thoothukudi district. The sample size for the district was 4,999 households, among which 3,203 households were from rural areas and 1,796 households were from urban areas. The blocks covered during the survey were: Alwarthirunagari, Karungulam, Kovilpatti, Ottapidaram, Pudur, Sathankulam, Srivaikundam, Thoothukudi, Udangudi and Vilathikulam.

2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 6,186 households in the Thoothukudi district were selected using a multi-stage stratified sampling design¹. The area-wise distribution of the total sample as well as the survey response is given in Table 2.1.

Table 2.1 Distribution of Sample Households – Response-wise

Response of Households	Area Type					
	Rural		Urban		Thoothukudi	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	3,203	78.26	1,796	85.81	4,999	80.81
Non-Response	132	3.23	97	4.63	229	3.70
Non-sample	758	18.52	200	9.56	958	15.49
Total	4,093	100	2,093	100	6,186	100

Thoothukudi district had a very low response rate—willingness of households to participate in the TNHPS-PBS—of 80.81 percent compared to the state response rate of 96.5 percent (TNHPS-PBS, 2021). Interestingly, urban areas had a higher response rate compared to the rural areas. Around 3.70 percent of households were not willing to participate in the survey. About 15.49 percent of the selected samples were removed as they were not considered as households as per the definition used in the PBS².

¹ Detailed explanation of the Sampling Methodology is available in the TNHPS-PBS State Report (see TNHPS-PBS, 2021).

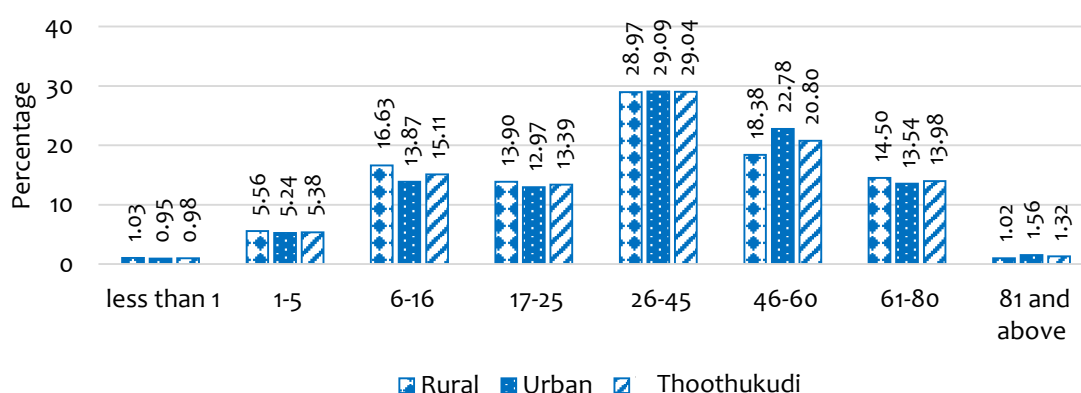
² A household is defined as a group of persons normally living together and taking food from a common kitchen. The category called non-sample consisted of institutions, houses of NRIs and other buildings where there was no kitchen.

3. Key Findings

3.1 Demographic Indicators

As per the PBS estimates, the average household size³ in the district had reduced from 3.79 in 2011 (Census, 2011) to 3.33 in 2018. As per the PBS estimates, 52.92 percent of the population in the district were female, and 47.08 percent of the population were male. Around 22.78 percent of the households in the district were headed by females, which was higher than the state estimate of 18.93 percent (TNHPS-PBS, 2021). Chart 3.1 shows the age-wise distribution of the population in Thoothukudi district.

Chart 3.1 Age-wise Distribution of Population



As per the PBS estimates, about 29 percent of the population in the district were in the age group of 26 to 45 years. The population—between 17 to 60 years—in the district was 63.23 percent, which was considerably lower than the state estimate of 66.00 percent. The proportion of senior citizens—above 60 years—in the district's population at 15.30 percent was much higher than that at the state level estimate of 11 percent (TNHPS-PBS, 2021).

The percentage of currently married population in the district was 69.47 percent in 2018. A higher percentage of males were currently married compared to females. The widowed female population was notably higher than the widowed male population. The widowed population in rural areas was higher than in the urban areas of the district.

³ Household size is defined as the number of family members currently living in the household during the PBS survey.

The religion-wise distribution of the households in the district as per the PBS estimates shows that 86.32 percent of the households practiced Hinduism, 1.14 percent practiced Islam and 12.51 percent followed Christianity.

Table 3.1 shows the social group-wise distribution of the households in the district.

Table 3.1 Social Group-wise Distribution of Households

Social Group	Percentage
SC	22.71
ST	0.15
BC	57.38
MBC	8.16
Denotified Communities (DNC)	5.22
General	6.12
DK/RF	0.25
Total	100

As per the PBS estimates, the highest percentage of households in Thoothukudi district belonged to the BC category. The percentages of SC and ST households in the district were 22.71 percent and 0.15 percent respectively in 2018.

It is important to note that the percentage of ST households in Thoothukudi district was only 0.15 percent, and only twenty-four ST households were sampled in the district. Hence, the results pertaining to this social group that are discussed in the report must be interpreted in this context.

3.2 Development Indicators

In this section, we discuss the PBS estimates on various development indicators such as literacy rate and employment status in Thoothukudi district.

3.2.1 Education

The change in literacy rate of Thoothukudi district and the state of Tamil Nadu during the period 2011 and 2018 is given in Table 3.2. As per Census 2011, a person aged seven and above who can both read and write with understanding in any language, is treated as literate. In the PBS, literacy rate is measured including those that have formal schooling and those that can read and write a simple sentence.

Table 3.2 Literacy Rates between Census 2011 and PBS 2018*

Gender	District - Rural		District- Urban		Thoothukudi		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	88.52	91.15	93.74	97.56	91.14	94.66	86.77	90.97
Female	76.03	82.77	86.66	92.70	81.33	88.28	73.40	80.15
Total	82.16	86.74	90.16	94.97	86.16	91.28	80.09	85.40

* The represented trend should be understood under the context that Census does 100 percent enumeration whereas in the PBS, a sample is surveyed

As per Census 2011, the literacy rate in Thoothukudi district at 86.16 percent was higher than the state estimate of 80.09 percent. The PBS estimates showed that in the year 2018, the literacy rate in Thoothukudi district had increased to 91.28 percent, which continued to be higher than the state estimate of 85.40 percent. The district had registered a 5.12 percent increase in literacy rate in this period while the state had registered a 5.31 percent increase. The difference in literacy rate between the district and the state estimate was 6.01 percent in 2011, which had declined to 5.88 percent in 2018 as per the PBS estimates. In terms of literacy rate, Thoothukudi was ranked third among the then 32 districts in 2018 (TNHPS-PBS, 2021).

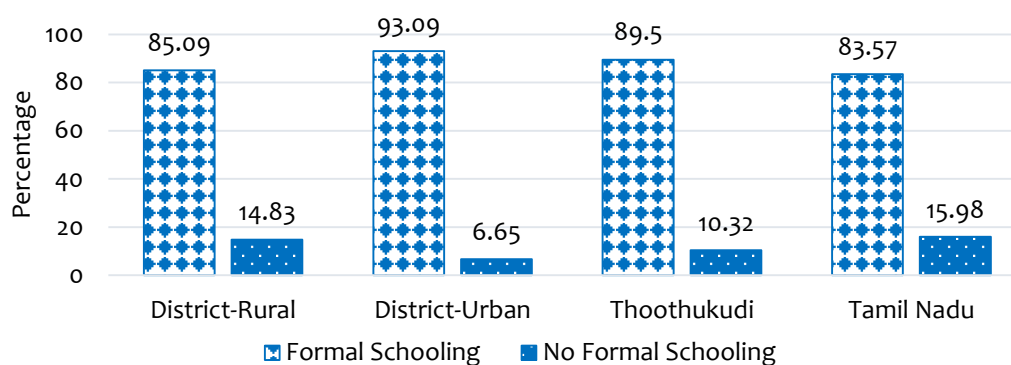
Both male and female literacy rates in Thoothukudi district had recorded an increase during the period under consideration, though a wide gender gap still prevailed. The gender gap in literacy rate had declined from 9.81 percent in 2011 to 6.38 percent in 2018, which is lower than the state gender gap of 10.82 percent in 2018.

Both rural and urban literacy rates recorded an increase between 2011 and 2018, though the rural literacy rate was still 8.23 percent lower than the urban literacy rate in 2018. The gender gap in literacy rate was higher in rural areas at 8.38 percent than in urban areas at 4.86 percent.

3.2.2 Education Status of Population (Age 7 and above)

In this section, we discuss the education status of the population aged seven and above in Thoothukudi district.

Chart 3.2 Formal Schooling of the Population – Area-wise



*Others and Don't Know/Refuse to Answer categories are not included in any chart, unless their value is substantially high. Therefore, the total might not add up to 100 percent.

Chart 3.2 shows that around 90 percent of the specified population in the district had attended formal schooling, which was higher than the state estimate. The percentage of population with formal education in urban areas was higher than in rural areas of the district.

Chart 3.3 Formal Schooling of the Population - Gender-wise

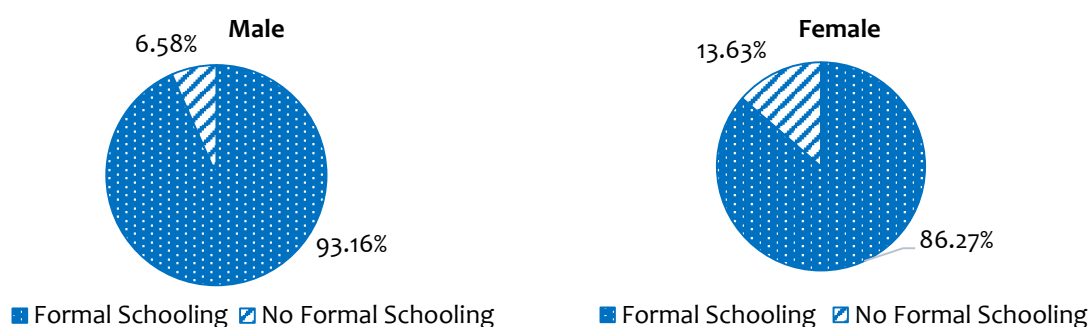


Chart 3.3 shows that the percentage of the specified population that had acquired formal education in the district was higher among males compared to females, again denoting a gender gap, like in literacy.

A district level analysis of the PBS on education attainment status of various social groups is shown below.

Table 3.3 Formal Schooling of Population - Social Group-wise Percentages

Education Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Formal Schooling	84.43	67.28	91.63	87.88	84.14	96.54	89.50
No Formal Schooling	15.55	32.72	8.11	12.06	15.59	3.46	10.32
Others and DK/RF	0.02	0.00	0.26	0.06	0.28	0.00	0.18
Total	100	100	100	100	100	100	100

Table 3.3 shows a variation across social groups in attainment of formal schooling. While more than 90 percent of the specified General and BC population in the district had

received formal education, less than 85 percent of the SC and DNC population had done so. The results for the ST social group must be interpreted in the context of their sample size of twenty-four households in the district, as discussed in Section 3.1.

To take this analysis further, Table 3.4 gives detailed information on the current highest level of formal educational attainment of the population that had received formal education.

Table 3.4 Highest Formal Educational Attainment of Population - Area-wise Percentages

Educational Attainment	Area Type		
	District- Rural	District- Urban	Thoothukudi
Primary (I to V)	30.68	20.95	25.09
Middle School (VI to VIII)	23.98	18.48	20.82
High School (IX to X)	18.17	22.38	20.59
Higher Secondary (XI to XII)	13.51	13.96	13.77
Bachelor's degree	7.40	12.25	10.18
Diploma Degree	3.81	5.81	4.96
Post Graduate Degree	2.36	5.87	4.38
Other Higher Education	0.00	0.02	0.01
Others/DK/RF	0.09	0.27	0.20
Total	100	100	100

Around 80.27 percent of the district’s population—aged seven and above, with formal education—was either pursuing or had completed schooling upto higher secondary level only. The percentage of the specified population that was either pursuing or had completed tertiary education—such as bachelor’s degree, diploma, or post graduate degree and above—was 19.53 percent, which was lower than the state estimate of 20.02 percent (TNHPS-PBS, 2021). Also, this figure was higher for urban areas than rural areas of the district.

Table 3.5 Highest Formal Educational Attainment of Population – Gender-wise Percentages

Educational Attainment	Gender		
	Male	Female	Thoothukudi
Primary (I to V)	22.03	28.03	25.09
Middle School (VI to VIII)	20.93	20.72	20.82
High School (IX to X)	22.89	18.38	20.59
Higher Secondary (XI to XII)	12.57	14.92	13.77
Bachelor's degree	10.09	10.27	10.18
Diploma Degree	7.04	2.96	4.96
Post Graduate Degree	4.17	4.58	4.38
Other Higher Education	0.00	0.02	0.01
Others/DK/RF	0.28	0.12	0.20
Total	100	100	100

Table 3.5 shows that a higher percentage of females at 82.05 percent in the specified population had completed schooling upto higher secondary level compared to males at

78.42 percent. In tertiary education, a higher percentage of females were either pursuing or had completed post-graduate degree compared to males, whereas the case with respect to diploma degree percentages was the reverse.

Table 3.6 Highest Formal Educational Attainment of Population – Social Group-wise Percentages

Educational Attainment	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Primary (I to V)	28.26	29.16	24.57	28.05	29.46	12.43	25.09
Middle School (VI to VIII)	21.56	32.21	20.88	22.05	22.53	14.83	20.82
High School (IX to X)	18.53	12.54	20.46	19.85	21.22	28.80	20.59
Higher Secondary (XI to XII)	15.25	12.10	13.74	10.84	13.18	13.30	13.77
Bachelor's degree	9.77	2.03	10.02	7.51	6.38	19.25	10.18
Diploma Degree	4.71	3.26	4.95	6.69	4.26	4.01	4.96
Post Graduate Degree	1.90	8.72	5.07	4.94	2.63	7.39	4.38
Other Higher Education	0.00	0.00	0.02	0.00	0.00	0.00	0.01
Others/DK/RF	0.02	0.00	0.29	0.07	0.33	0.00	0.20
Total	100	100	100	100	100	100	100

The social group-wise analysis in Table 3.6 shows that most of the SC and DNC population in the district were either pursuing or had completed only completed schooling upto higher secondary level. The percentage of population with tertiary education—bachelor's degree and above—was quite high among the General category at 30.65 percent, followed by the BC category at 20.06 percent. Similar to the national and state level trend, the percentage of population with higher educational qualification in the district was lower among the SC category. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

About 10.32 percent of the population had not received formal education in Thoothukudi district (refer Chart 3.2); the PBS investigated the ability of those who could read and write a simple sentence with understanding or functional literacy.

Table 3.7 Functional Literacy of Population with No Formal Schooling – Area-wise Percentages

Functional Literacy	Area type		
	Rural	Urban	Thoothukudi
Yes	11.16	28.17	17.21
No	88.76	71.83	82.74
DK/RF	0.07	0.00	0.05
Total	100	100	100

Table 3.7 shows the functional literacy status of the population with no formal schooling. Only 17.21 percent of the population without formal schooling had functional literacy. The specified population group in urban areas of the district had a better functional literacy rate than the rural areas.

Table 3.8 Functional Literacy of Population with No Formal Schooling - Social Group-wise Percentages

Functional Literacy	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Yes	12.13	27.26	20.37	14.83	15.70	49.05	17.21
No	87.73	72.74	79.63	85.17	84.30	50.95	82.74
DK/RF	0.13	0.00	0.00	0.00	0.00	0.00	0.05
Total	100	100	100	100	100	100	100

Table 3.8 shows the functional literacy status of the population with no formal schooling, across various social group categories. The specified population belonging to the General category had the highest percentage of functional literacy, though the functional literacy was low across almost all social groups.

3.2.3 Employment Status

This section looks at the employment status of the household members, types of employment that they are engaged in, the unemployment status at the district level and comparison of these findings with the state PBS estimates. In the PBS, the population aged 14 years and above has been classified as employed, unemployed and not in the labour force⁴.

The employed category—population aged 14 years and above—includes the following:

- (i) People who are self-employed in agriculture,
- (ii) People who are self-employed in allied agricultural activities,
- (iii) People who are self-employed in non-agricultural activities,
- (iv) People who worked as casual labourers in agriculture,
- (v) People who worked as casual labourers in industry,
- (vi) People who worked as casual labourers in the service sector,
- (vii) People who worked as casual labourers in other domains,
- (viii) People who worked as salaried employees in the government sector,
- (ix) People who worked as salaried employees in the private sector,

⁴ Percentage of population employed = (Number of employed persons 14 years and above/Total population of the district 14 years and above) *100

Percentage of population unemployed = (Number of unemployed persons 14 years and above/Total population of the district 14 years and above) *100

Percentage of population not in the labour force = (Number of persons 14 years and above not in workforce/Total population of the district 14 years and above) *100

- (x) People who are involved in multiple occupations, and
- (xi) People who are involved in other types of work.

The unemployed category includes those aged 14 years and above, who did not work but were actively seeking and/or available for work.

The not in the labour force category consists of the following:

- (i) People who attended educational institutions,
- (ii) People who attended domestic duties only,
- (iii) Rentiers, pensioners, remittance recipients, etc.,
- (iv) People who are not able to work due to disability and
- (v) Others (including begging, etc.).

Chart 3.4 Employment Status of Population (Age 14 years and above) – Area-wise

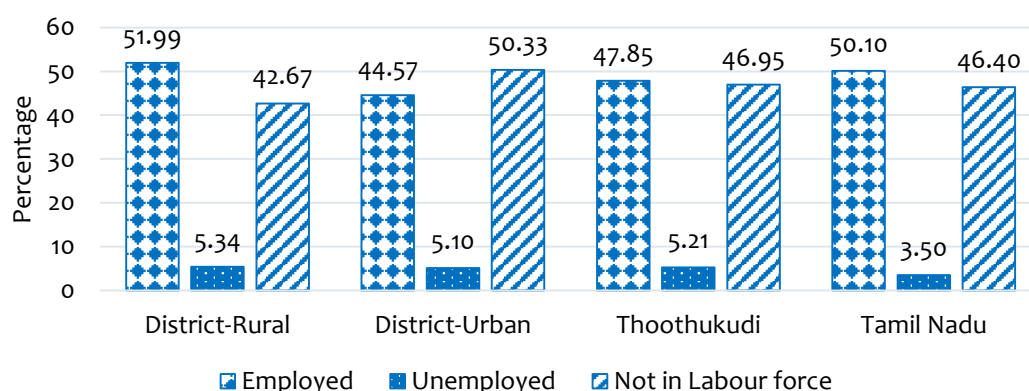
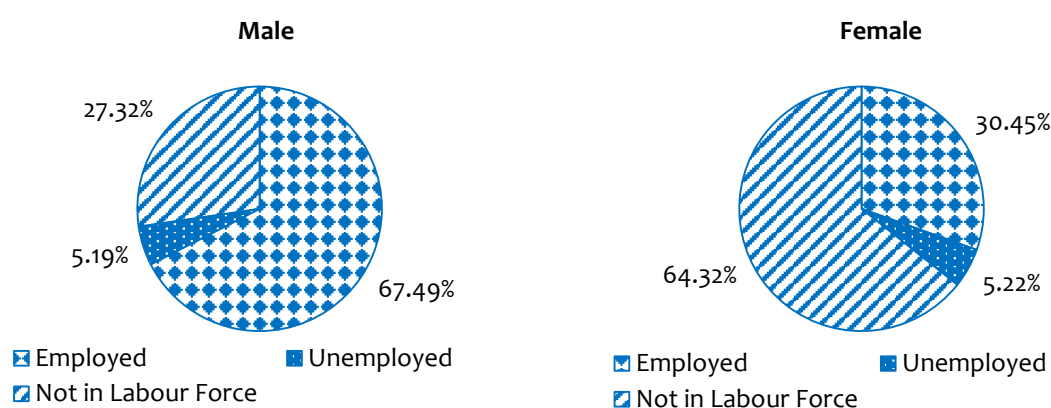


Chart 3.4 shows that the overall percentage of the employed population—14 years and above—in the district was lower than the state estimate. Also, the share of unemployed population was much higher in the district compared to the state. The percentage of population that was employed was higher in rural areas of the district than the urban. The unemployment status in rural areas at 5.34 percent and in urban areas at 5.1 percent of the district were higher than the state’s rural and state’s urban estimates at 3.6 percent and 3.77 percent respectively (TNHPS-PBS, 2021). Thoothukudi district was ranked twenty third among all districts in Tamil Nadu in terms of employed population and ranked first highest in terms of the unemployed population (TNHPS-PBS, 2021).

Chart 3.5 shows the gender-wise employment status of the population of the age 14 years and above.

Chart 3.5 Employment Status of the Population – Gender-wise



While more than two-thirds of the specified male population was employed, the female work participation was only around 30 percent. Decreased female labour force participation has been well documented at the national level (Das et al., 2015; Desai, 2017; Desai & Joshi, 2019). The district female work participation was higher than both the national average of 23.3 percent in 2017-18 (National Statistical Office, 2019) and the state estimate of 29.96 percent. Close to two-thirds of the specified female population not in the labour force, and among these, majority of them at 3.35 percent was associated with attending to domestic duties as homemakers (see Chart 3.7). Thoothukudi district was ranked sixteenth in terms of employed female population and ranked first highest in terms of unemployed female population (TNHPS-PBS, 2021).

Table 3.9 Work type of Employed Population – Area-wise Percentages

Work Type	Area type		
	Rural	Urban	Thoothukudi
Self Employed Agriculture	10.03	2.49	6.11
Self Employed Non-Agriculture	7.71	23.67	16.01
Self Employed Allied Agriculture	0.66	0.96	0.81
Casual Labourer Agriculture	13.84	3.63	8.53
Casual Labourer Industry	15.56	21.88	18.85
Casual Labourer Service	7.13	14.22	10.82
Casual Labourer (Others)	20.70	1.94	10.94
Salaried Worker Government	5.78	10.33	8.15
Salaried Worker Private	10.53	18.56	14.71
Multiple Occupations	7.65	1.79	4.60
Other	0.42	0.28	0.35
DK/RF	0.00	0.25	0.13
Total	100	100	100

Around 19 percent of the employed population were engaged as casual labourers in the industrial sector, reflective of the industrial nature of the district's economy. At the state level, the greatest proportion of the working population were employed as salaried workers in the private sector at 21.82 percent (TNHPS-PBS, 2021). Other casual labour was most common in rural areas of the district, whereas self-employment in non-agriculture was predominant in urban areas.

Table 3.10 Percentage of Population Engaged in Different Types of Livelihood Activities – Social Group-wise Percentages

Work Type	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Self Employed Agriculture	6.36	3.33	6.54	4.65	6.08	2.46	6.11
Self Employed Non-Agriculture	5.11	7.34	20.69	18.91	13.46	23.69	16.01
Self Employed Allied Agriculture	0.62	0.00	1.02	0.74	0.54	0.00	0.81
Casual Labourer Agriculture	11.43	3.36	7.64	7.59	11.38	0.34	8.53
Casual Labourer Industry	20.93	34.13	18.14	18.28	18.25	16.56	18.85
Casual Labourer Service	6.98	7.96	10.49	10.82	22.34	20.45	10.82
Casual Labourer (Others)	24.68	6.41	6.18	7.34	5.47	0.94	10.94
Salaried Worker Government	8.04	32.11	7.54	10.10	3.87	16.81	8.15
Salaried Worker Private	9.96	2.00	17.15	16.00	9.82	18.74	14.71
Other	0.42	0.00	0.41	0.00	0.29	0.00	0.35
Multiple Occupation	5.47	3.36	4.22	4.06	8.50	0.00	4.60
DK/RF	0.00	0.00	0.00	1.53	0.00	0.00	0.13
Total	100	100	100	100	100	100	100

The industrial sector has been the primary employer across many social groups in the district, in contrast to other districts, where the agriculture sector was the predominant employer. The highest percentage of the SC population in the district was involved in other casual labour, unlike at the state level estimates where they were engaged as casual labourer in agriculture at 33.33 percent. Except for the DNC population, which was primarily involved as casual labourer in the service sector, majority of the MBC, BC and General category population were self-employed in non-agriculture. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

Chart 3.6 Composition of Population Not in the Labour Force – Area-wise

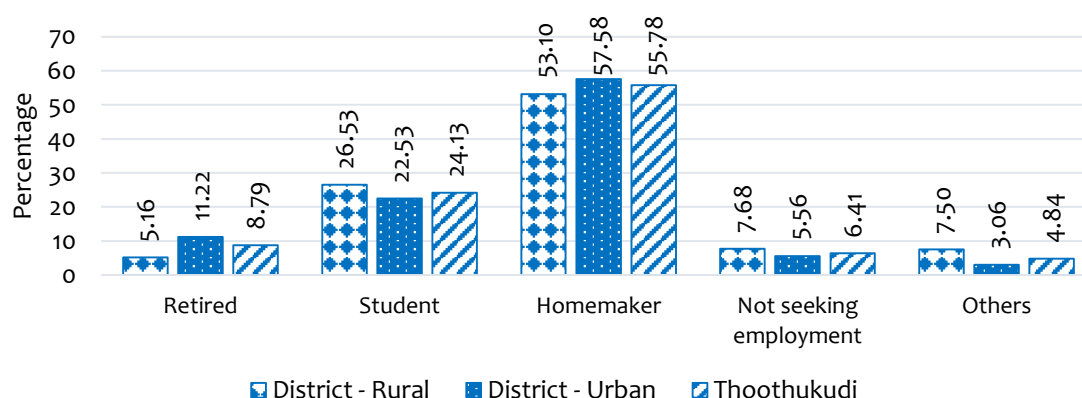
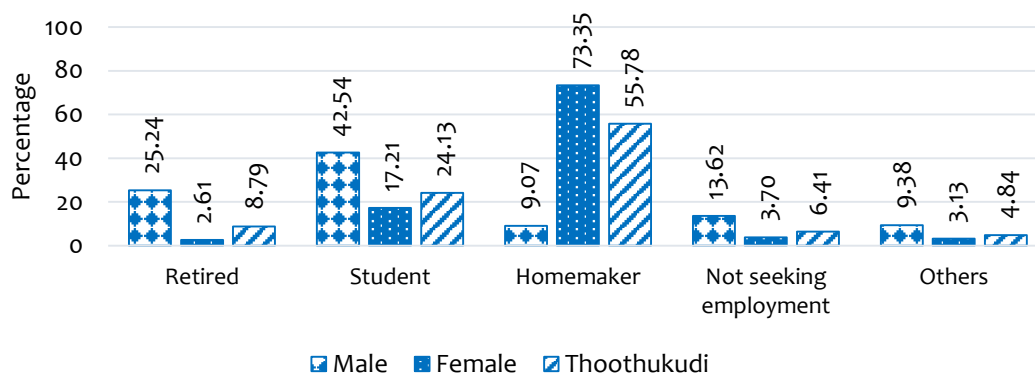


Chart 3.6 shows that, similar to the trend at the state level (TNHPS-PBS, 2021), more than half of the population that was not in the labour force in the district comprised homemakers involved in unpaid domestic duties of the household, followed by students. While the proportions of the population that were not seeking employment or were

students, were higher in rural areas than urban areas, while the percentages of retired people and homemakers were higher in urban areas than rural areas.

Chart 3.7 Composition of the Population Not in the Labour Force (Age 14 years and above) – Gender-wise



While Chart 3.3 represents the lower female involvement in formal education, Chart 3.7 shows the staggeringly lower female involvement in higher education compared to men as only 17.21 percent of the female not-in-labour-force population were students. Similar to the state trend, majority of the male not-in-labour-force population were students, whereas a majority of females were homemakers. It must be noted that the study did not capture unpaid domestic labour or any other form of unpaid labour carried out by women.

The composition of the population not in the labour force analyzed according to social groups is given in Table 3.11.

Table 3.11 Composition of the Population Not in the Labour Force – Social Group-wise Percentages

Current Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Retired	6.05	3.25	8.53	5.84	6.64	20.62	8.79
Student	34.91	20.78	21.60	19.91	30.51	19.81	24.13
Homemaker	50.71	44.98	57.08	64.79	53.09	50.72	55.78
Not seeking employment	5.24	21.06	7.42	3.39	4.49	4.74	6.41
Others	3.06	9.93	5.31	6.06	5.27	4.11	4.84
DK/RF	0.03	0.00	0.05	0.00	0.00	0.00	0.04
Total	100	100	100	100	100	100	100

Table 3.11 shows that within all social groups, the percentage of homemakers was the largest compared to other categories in the district. The SC and DNC categories had a higher percentage of not-working population as students compared to the other social groups. Although majority of the employed SC and DNC population were employed as casual labourers (see Table 3.10), the specified population belonging to the student category was high for these two social groups, probably suggesting increasing awareness on the importance of education.

3.3 Socio-Economic Indicators

The PBS estimates for various socio-economic indicators of Thoothukudi district such as ownership of agricultural land, household assets and income are shown in this section.

3.3.1 Ownership of Agricultural Land

The PBS estimates of ownership of agricultural land at the household level in the rural and urban areas of Thoothukudi district is given in Chart 3.8. The TNHPS PBS definition of land ownership does not include leased-in land or other forms of holdings. Data was collected on the ownership of agricultural land only. The fourth round of National Family Health Survey (NFHS, 2015-16) was a secondary source of data that followed the same definition for ownership of agricultural land.

Chart 3.8 Ownership of Agricultural Land

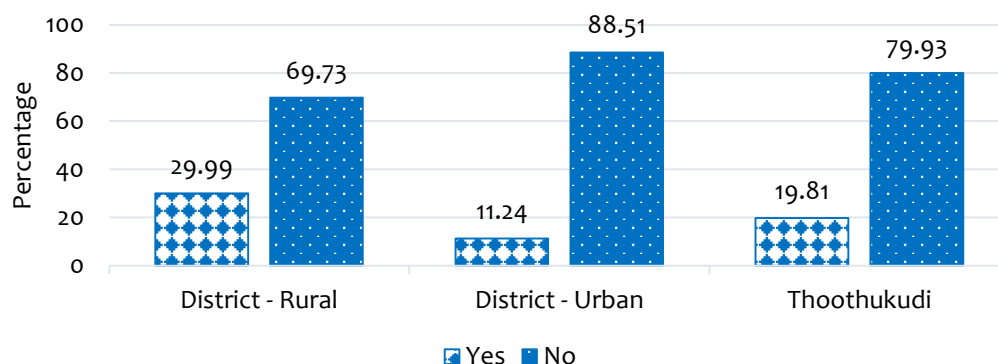


Chart 3.8 shows that the percentage of households owning agricultural land in the district was similar to that at the state level (19.41 percent). The district was ranked fifteenth in the state in terms of agricultural land ownership, despite being a largely urban district (TNHPS-PBS, 2021). Area-wise comparison shows that a higher proportion of households in rural and urban areas of the district owned agricultural land compared to the respective state level rural and urban estimates at 29 percent and 8.61 percent respectively (TNHPS-PBS, 2021). Table 3.12 shows the percentage of agricultural land-owning households in the district that depended on irrigation or rain.

Table 3.12 Type of Agricultural Land Owned by the Households – Area-wise Percentages

Type of Agricultural Land	Area type		
	Rural	Urban	Thoothukudi
Only Irrigated Agriculture Land	30.89	38.82	33.33
Only Unirrigated Agriculture Land	66.26	55.42	62.92
Both Irrigated and Unirrigated Agriculture Land	2.80	3.79	3.10
DK/RF	0.05	1.97	0.64
Total	100	100	100

Table 3.12 shows that, as per the PBS estimates, around 62.92 percent of the households that owned agricultural land in Thoothukudi district depended on rain-fed irrigation alone. A higher percentage of urban households owned irrigated agricultural land compared to the rural households in the district. Tank irrigation, tube and dug well irrigation are the major sources of irrigation in Thoothukudi district (Tamil Nadu State Planning Commission, 2017b). The proportion of households having irrigated agricultural land was lower in the district at 33.33 percent compared to the state estimate of 50.03 percent (TNHPS-PBS, 2021).

An analysis of the social group-wise ownership of agricultural land by households in Table 3.13 shows that a relatively higher percentage of SC and DNC households held agricultural land in the district, while General category households held the least. Though 25 percent of the ST households in the state-owned agricultural land (TNHPS-PBS, 2021), none of the twenty-four ST category households surveyed in the district did so.

Table 3.13 Ownership of Agricultural Land - Social Group-wise Percentages

Agricultural Land Ownership	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Yes	27.44	0.00	19.13	13.73	22.49	4.84	19.81
No	71.95	100	80.67	86.19	77.51	95.16	79.93
DK/RF	0.61	0.00	0.21	0.08	0.00	0.00	0.27
Total	100	100	100	100	100	100	100

Based on the size of agricultural land, the PBS classified the land owned by the households into marginal, small, semi-medium, medium, and large. Of the households that owned agricultural land, the percentage of households under each size category is given in Table 3.14.

Table 3.14 Size of Agricultural Land Owned by the Households – Area-wise Percentages

Size of Agricultural Land (in Hectares)	Area type		
	Rural	Urban	Thoothukudi
Marginal (0.01 - 0.99)	55.11	54.85	55.03
Small (1 - 1.99)	22.23	15.13	20.07
Semi Medium (2 - 3.99)	16.36	13.58	15.52
Medium (4 - 9.99)	5.32	12.96	7.65
Large (10 and above)	0.98	3.47	1.74
Total	100	100	100

Table 3.14 shows that 75.1 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares. This figure is much lower when compared to the state level estimate of 89.33 percent. The shares of semi-medium, medium, and large landholdings were higher than that of the state estimates of 7.64 percent, 2.26 percent and 0.77 percent respectively (TNHPS-PBS, 2021).

3.3.2 Ownership of Agriculture, Allied Agricultural and Fishing Assets

In this section, we discuss the ownership of agricultural, allied agricultural and fishing assets such as tractor, pump set, dairy animals, poultry birds, mechanized and non-mechanized boats, amongst the households of Thoothukudi district.

Chart 3.9 Ownership of Agriculture, Allied Agricultural and Fishing Assets – Area-wise

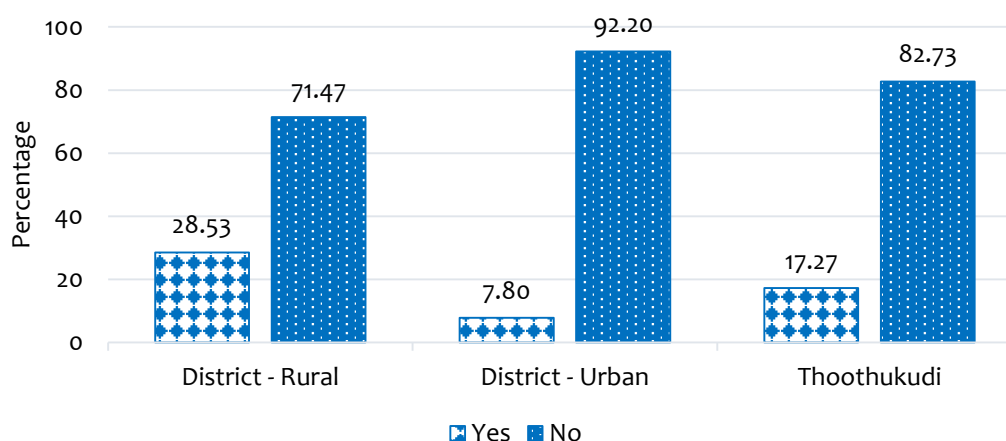
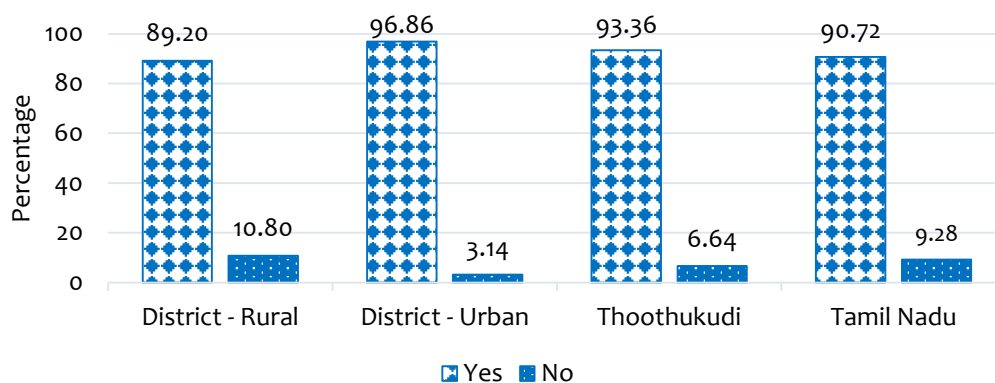


Chart 3.9 shows that only 17.27 percent of the households in Thoothukudi district owned at least one agricultural, allied agricultural or fishing asset. This estimate was lesser than the state estimate of 20.92 percent (TNHPS-PBS, 2021). The ownership of such assets was higher in rural areas than urban areas. While the ownership pattern was higher in urban areas of the district compared to the state urban estimates of 7.67 percent, the ownership pattern was lesser in rural areas of the district compared to the state rural estimates of 32.69 percent (TNHPS-PBS, 2021).

3.3.3 Presence of Household Assets

Chart 3.10 shows the percentage of households in Thoothukudi district that owned at least one household asset. Household assets include Air Conditioner (AC), refrigerator, two-wheeler, four-wheeler, and mobile phones. The state PBS estimates found that the combination of mobile phone and two-wheeler had been the predominantly owned assets in rural areas whereas a combination of refrigerator, two-wheeler and mobile phone had been largely owned in the urban areas.

Chart 3.10 Ownership of at least one Household Asset – Area-wise



The percentage of households owning at least one household asset in Thoothukudi district was higher than the state estimate. Within the district, the urban areas had a higher percentage of households owning at least one household asset than the rural areas.

Table 3.15 Presence of at least one Household Asset - Social Group-wise Percentages

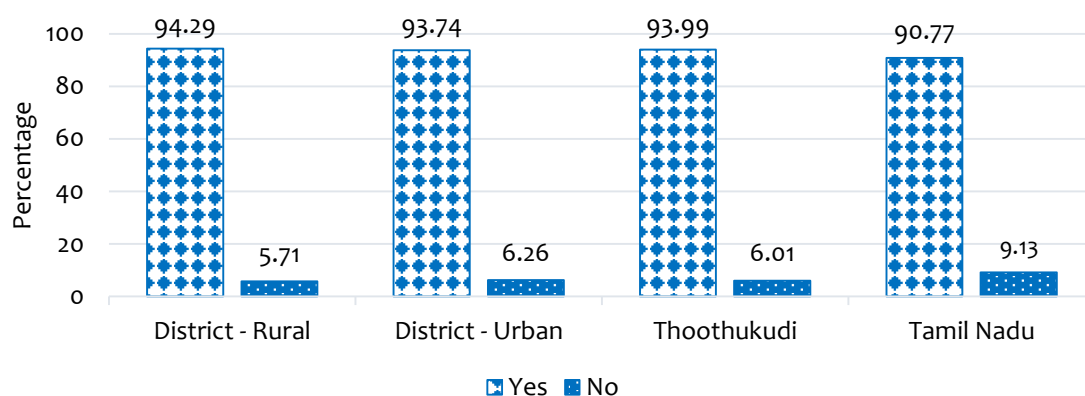
Household Asset	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Yes	90.27	95.26	94.46	90.53	91.48	99.88	93.36
No	9.73	4.74	5.54	9.47	8.52	0.12	6.64
Total	100	100	100	100	100	100	100

The PBS estimates showed that, more than 90 percent of households belonging to all social groups owned at least one household asset. Also, around 9.73 percent of the SC category households did not even own a mobile phone. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

3.3.4 Possession of Ration Card

Possession of a ration card can be treated as a determinant of socio-economic status at the household level. It plays a vital role in inclusion—or exclusion—of households from the government welfare schemes such as the availability of subsidized items from the Public Distribution System and subsidized LPG connection, for instance. The percentage of households that possessed a ration card in rural and urban areas of Thoothukudi district are given in Chart 3.11.

Chart 3.11 Possession of Ration Card



The district estimates on the percentage of households that possessed a ration card was higher than the state estimate. Within the district, a higher percentage of rural households possessed a ration card compared to the urban households.

Social group-wise estimates on the possession of ration card at the household level is shown in Table 3.16. More than 90 percent of households belonging to almost all social groups possessed ration cards in the district. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

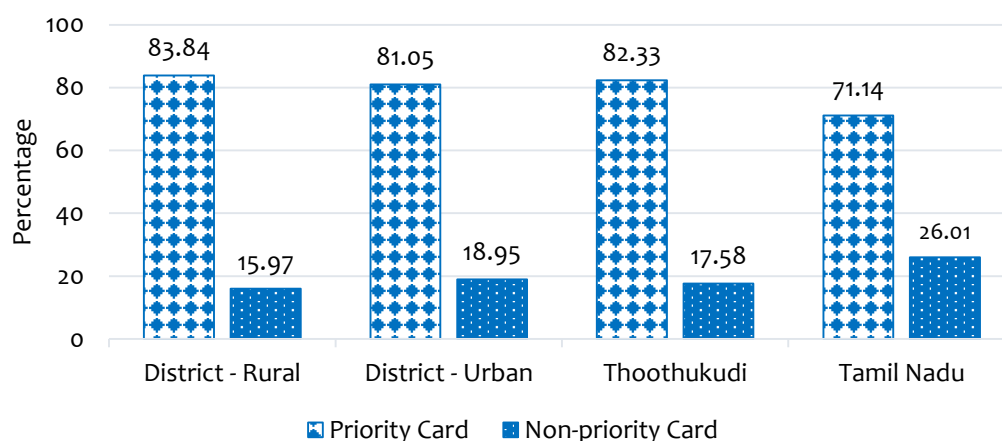
Table 3.16 Possession of Ration Card at the Household Level - Social Group-wise Percentages

Possession of Ration Card	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Yes	92.83	73.44	95.12	89.52	90.01	97.71	93.99
No	7.17	26.56	4.88	10.48	9.99	2.29	6.01
Total	100	100	100	100	100	100	100

3.3.5 Type of Ration Card

According to the National Food Security Act (NFSA) 2013, ration cards are broadly categorized into Priority Households (PHH) and Non-Priority Households (NPHH). Households with priority ration card are the target group of various social welfare schemes such as Antyodaya Anna Yojana (AAY) among others. The percentages of households possessing priority and non-priority ration cards in rural and urban areas of Thoothukudi district are given in Chart 3.12.

Chart 3.12 Type of Ration Card at the Household Level



The percentage of households possessing priority ration cards in the district was much higher compared to the state level estimate. A higher percentage of rural households possessed priority cards than urban households.

3.4 Household Income

3.4.1 Annual Household Income from Various Sources in the year 2017-2018

In this section, we analyze the annual income of households in Thoothukudi district from various sources in the year 2017-2018. The sources of income are income earned from agriculture, allied agriculture, salaried work, self-employed, wage labour and other sources. The category 'other sources' consists of income sources such as pension, remittances, investments, and other mixed categories. Table 3.17 shows the mean income of households that depend on various sources of income in Thoothukudi district.

Table 3.17 Mean Annual Household Income from Different Sources in the FY 2017-2018 (INR)

Source	Rural	Urban	Thoothukudi	Tamil Nadu
Agriculture	46,682	75,818	53,479	61,830
Allied Agriculture	33,736	1,00,048	53,257	38,576
Salaried	1,50,233	2,84,247	2,36,284	2,29,857
Self Employed	88,434	1,53,944	1,37,455	1,47,403
Wage Labour	40,350	49,629	44,782	47,734
Other Sources	62,615	1,45,099	99,060	97,646
Income from all Sources	89,659	1,78,134	1,37,060	1,42,752

The mean annual household income of Thoothukudi district was 3.99 percent lesser than the state estimates of ₹1,42,752. The mean household income was higher among the households with salaried income and lower among the households that depended on

wages. Among the then 32 districts, Thoothukudi was at ninth place in terms of mean annual household income (TNHPS-PBS, 2021).

In rural areas of Thoothukudi district, the mean household income was ₹89,659.07, which was lesser than the state rural estimate of ₹92,765 (TNHPS-PBS, 2021). The mean annual household income from agriculture was lesser due to various reasons such as high number of marginal landholders, high percentage of non-irrigated agriculture and drought during the previous years. The mean household income was higher among the households that depended on salaried income. Lower mean income had been reported among the households that engaged in allied agriculture and wage labour.

In urban areas of Thoothukudi district, the mean household income was ₹1,78,134.10, which was lesser than the state urban estimate of ₹1,99,629 (TNHPS-PBS, 2021). The mean household income was higher among the households that depended on salaried income. Lower mean income had been reported among the households that depended on wage labour.

3.4.2 Income Inequality in Thoothukudi District

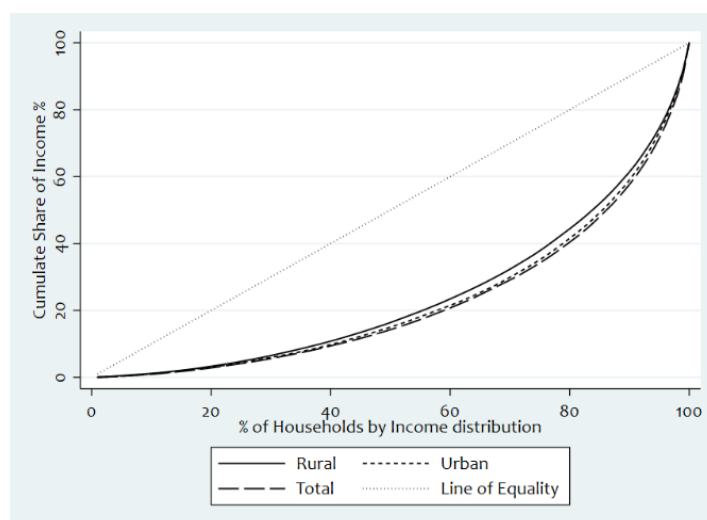
The Gini coefficient measures inequality levels in income or wealth where the coefficient value of 0 denotes perfect equality and 1 denotes perfect inequality (across households). The income inequality in Thoothukudi district (0.553) was lower than the state estimate (0.563)⁵. Income inequality across households in urban areas of the district (0.540) was found to be higher than that in the rural areas (0.513).

Table 3.18 Gini Coefficient of Income Inequality- Area-wise

Areas	Gini Coefficient
Rural	0.513
Urban	0.540
Thoothukudi	0.553
Tamil Nadu	0.563

⁵ Other studies have estimated the Gini coefficient for Tamil Nadu, for instance - Chandrasekhar et al. (2021) estimated the Gini coefficient of income inequality for Tamil Nadu as 0.378 in 2018-19 using data from the Periodic Labour Force Survey (PLFS) (2018-19).

Chart 3.13 Lorenz Curve and Income Inequality



The Lorenz curve is a graphical representation of inequality in the distribution of income or wealth of the households. Chart 3.13 represents that the bottom 60 percent of the households held around 20 percent of the total income; the bottom 80 percent of households held around 40 percent of the total income and the top 20 percent of households held around 60 percent of the total income. Both Chart 3.13 and Table 3.18 show that income inequality was higher in urban areas compared to the rural areas of the district.

3.4.3 Households' Expectation of Change in their Income in the Next 5 Years

Besides the present income of the households (in the year 2017-18), the PBS also investigated the households' expectation of change in income in the next five years. The expectation of a household head on the change in the household's income in the future depends on various factors such as probability of a household member's entry (or exit) to (or from) the labour market, expected possession of financial and non-financial assets and so on. These can capture the level of optimism—or pessimism—that each household has about their future economic status. Table 3.19 shows the area-wise percentage of households expecting an increase, decrease or no change in their income in Thoothukudi district.

Table 3.19 Households' Expectation of Change in Income in the Next 5 Years – Area-wise Percentages

Expectation of Change in Household Income	Area type			
	Rural	Urban	Thoothukudi	Tamil Nadu
Higher	53.87	65.40	60.13	50.06
Lower	5.86	6.62	6.28	8.17
About the same	30.69	16.89	23.20	31.66
DK/RF	9.58	11.09	10.40	10.11
Total	100	100	100	100

While around two-thirds of the urban households in the district expected their income to increase in the following five years, the percentage of households expecting their future income to remain the same was considerably higher in rural areas. Only around six percent of the households expected a fall in future income.

Table 3.20 Households' Expectation of Change in Income in the Next 5 Years - Social Group-wise Percentages

Expectation of Change in Household Income	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Higher	45.41	73.65	65.22	64.35	62.34	58.15	60.13
Lower	8.04	0.00	4.77	10.64	6.03	8.39	6.28
About the same	37.47	23.19	19.29	16.79	24.13	15.32	23.20
DK/RF	9.07	3.16	10.72	8.22	7.50	18.14	10.40
Total	100	100	100	100	100	100	100

While more than 60 percent of the BC, MBC, and DNC households in Thoothukudi district expected an increase in their future income, more than one-third of the SC households expected their income to remain the same. The MBC and General category households reported a relatively higher percentage of decrease in expected future income. The estimates for the ST category must be interpreted in the context of their sample size in the district, as discussed in Section 3.1.

3.5 Basic Infrastructure

In this section, we discuss the PBS estimates for variables such as ownership and type of houses, electrification status, drinking water and sanitation.

3.5.1 House Ownership Status

The area-wise percentage of households that lived in an own house or stayed at a rented house is given in Chart 3.14.

Chart 3.14 Ownership Status of the Households' Dwelling/ House – Area-wise

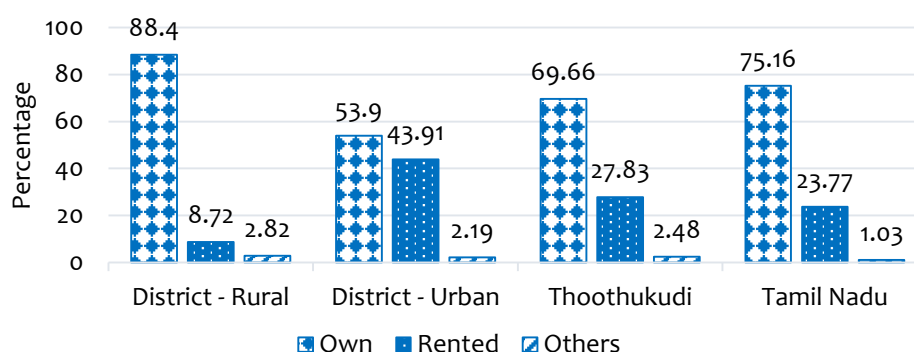


Chart 3.14 shows that the proportion of households living in their own house in the district was lower than the state level estimate. Thoothukudi district was ranked twenty seventh among the then 32 districts of Tamil Nadu in terms of percentage of households living in their own house (TNHPS-PBS, 2021). While around 88 percent of the households in rural areas lived in their own house, around 43 percent of urban households were relying on rented houses for their stay. Around 2.5 percent of households were living in other houses such as relative's house, encroachments etc. This data does not capture the ownership of a house in a different geographical location.

Table 3.21 Ownership Status of the Households' Dwelling/House - Social Group-wise Percentages

Ownership Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Own	83.89	93.57	68.13	58.62	61.87	51.46	69.66
Rented	13.14	6.43	29.62	38.13	37.69	44.41	27.83
Others	2.86	0.00	2.24	3.25	0.44	4.13	2.48
DK/RF	0.10	0.00	0.01	0.00	0.00	0.00	0.03
Total	100	100	100	100	100	100	100

Table 3.21 shows that more than 80 percent of the SC households in the district lived in their own house, while only more than half of the General and MBC households were doing the same. The estimates for the ST category must be interpreted in the context of their sample size in the district, as discussed in Section 3.1.

A detailed analysis of ownership of houses showed that out of the 69.66 percent households (see Chart 3.14) that lived in an own house in the district, 13.81 percent of houses were built under a government scheme, which was lower than the state estimate of 14.12 percent (TNHPS-PBS, 2021). The social group-wise analysis of this parameter is given below.

Table 3.22 House Constructed Under a Government Scheme - Social Group-wise Percentages

House Constructed under Government Scheme	Social Group						
	SC	ST	BC	MBC	DNC	General	Total
Yes	34.24	0.00	5.98	7.10	8.88	4.22	13.81
No	65.69	100	94.02	92.90	90.89	95.78	86.15
DK/RF	0.08	0.00	0.00	0.00	0.23	0.00	0.05
Total	100	100	100	100	100	100	100

Table 3.22, shows that, in Thoothukudi district, SC households had the highest percentage of houses built under a government scheme compared to other social groups. Though around 35 percent of the house-owning ST households in the state had constructed a

house under a government scheme (TNHPS-PBS, 2021), none of the twenty-two house-owning ST households surveyed in Thoothukudi district had done so.

3.5.2 House Type

Based on the material used for wall/roof or the quality of the house, the PBS classified houses as Kutccha, Pucca and Semi-pucca. The percentage of houses that come under each type are as follows.

Chart 3.15 Types of Houses – Area-wise Percentages

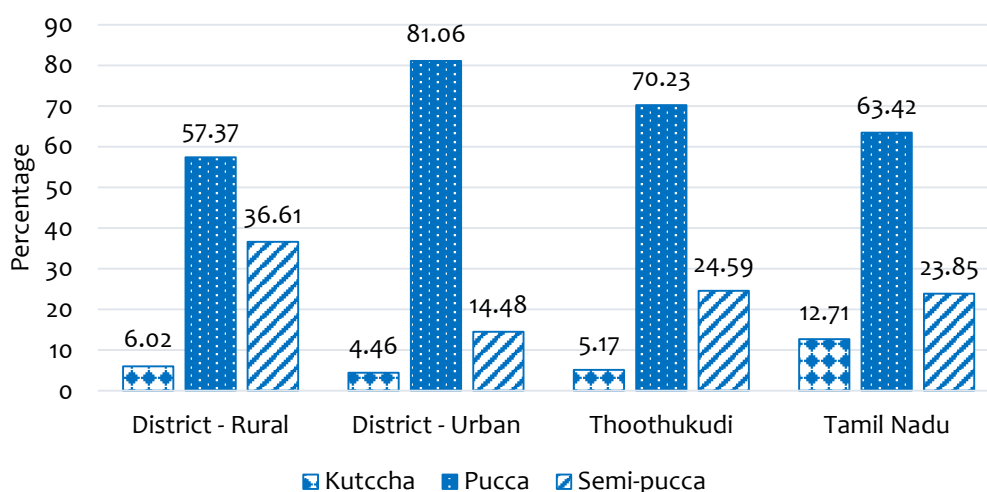


Chart 3.15 shows that majority of households in Thoothukudi district were living in pucca houses, which was higher than the corresponding state estimate. The percentage of pucca houses in rural and urban areas of the district were higher than their respective state rural and state urban estimates of 52.93 percent and 75.22 percent respectively (TNHPS-PBS, 2021). The percentage of households in the district living in kutccha houses was very low.

3.5.3 Primary Drinking Water Source

In this section, we discuss the PBS findings on the primary source of drinking water of the households in Thoothukudi district. The primary sources⁶ of water are: bottled water, piped water into dwelling, piped water to yard or plot, public tap or standpipe, tube well or borehole. Other water sources include protected well, unprotected well, rainwater collection and surface water (tank/pond/river/dam).

⁶ Primary source - Water that is availed for the greater part of the year

Chart 3.16 Primary Source of Drinking Water of Households

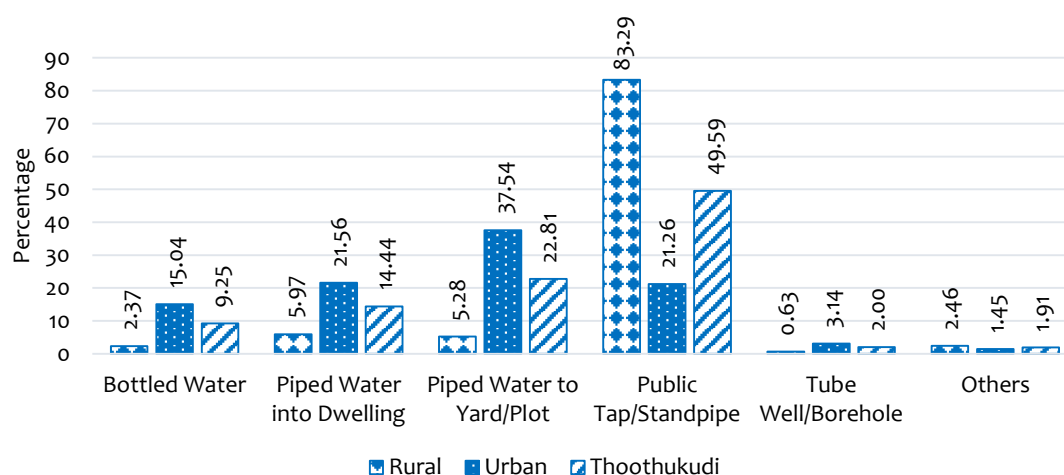


Chart 3.16 shows that 49.59 percent of households in Thoothukudi district were using public tap or standpipe as their primary source of drinking water, which is much higher than the state estimate of 32.84 percent. The state estimates showed that piped water into the dwelling in urban areas at 37.02 percent and public tap/standpipe in rural areas at 44.51 percent were the primary water sources of households (TNHPS-PBS, 2021). In Thoothukudi district, piped water to the yard/plot was most common in urban households and public tap/standpipe was predominantly used in rural households.

3.5.4 Electricity

Tamil Nadu had witnessed mass electrification during the last decade. A comparison of households with electricity connection between Census (2011) and the state PBS estimates in 2018 (TNHPS-PBS, 2021) showed that the state was close to achieving complete electrification in case of urban areas. The electrification status had improved in rural areas as well.

Chart 3.17 Comparison of Households with Electricity between Census (2011) and PBS 2018

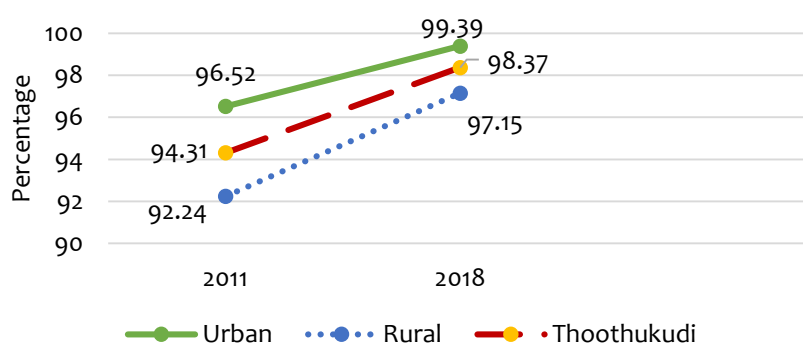


Chart 3.17 shows rapid electrification in Thoothukudi district between 2011-2018. The rate of growth of households with electricity was slightly higher in rural areas compared to the

urban areas. The electrification status in the district was higher than the state estimate of 97.6 percent (TNHPS-PBS, 2021).

3.5.5 Primary Cooking Fuel

A comparison of Census (2011) and the PBS estimates on the main fuel⁷ used for cooking by the households in the district is given in Chart 3.18.

Chart 3.18 Comparison of Primary Cooking Fuel – Thoothukudi and Tamil Nadu

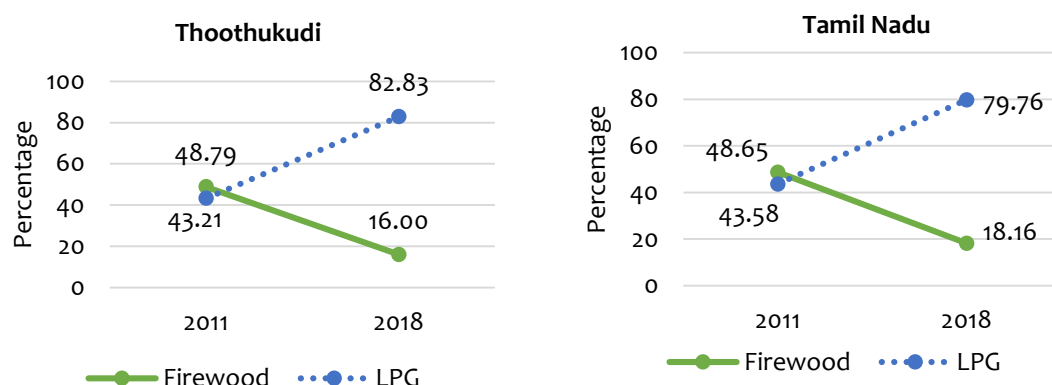


Chart 3.18 shows that, although the use of LPG as the primary cooking fuel had increased tremendously in the district from 2011 (Census 2011) to 2018 encompassing more than 80 percent of the households, firewood was still used by 16 percent of the households. Compared to other districts of Tamil Nadu, Thoothukudi district was ranked fourteenth in terms of LPG use and ranked nineteenth in terms of firewood use as primary cooking fuel (TNHPS-PBS, 2021).

Chart 3.19 Comparison of Primary Cooking Fuel – Rural and Urban

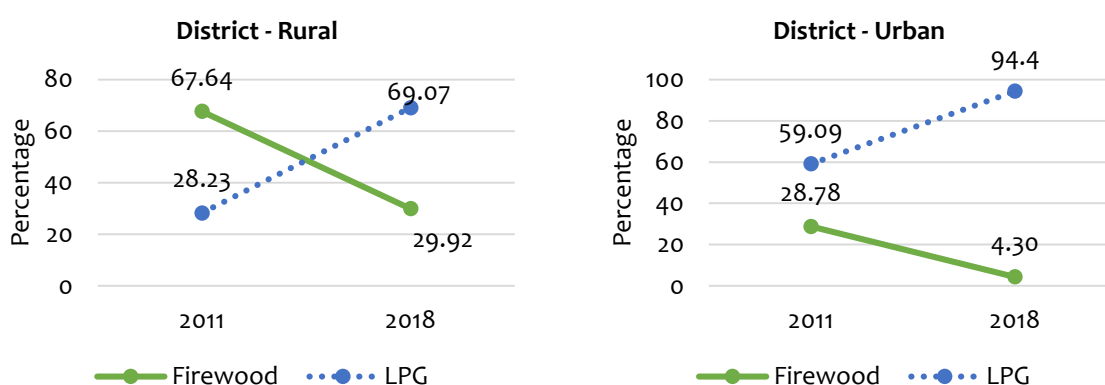


Chart 3.19 shows that the predominant fuel in rural areas in the district had changed drastically from firewood to LPG in the period 2011-18. LPG uptake had increased further in urban areas, and that of firewood had dropped significantly during the same period.

⁷ Primary Cooking Fuel: Fuel that is used for the greater part of the year

Table 3.23 Primary Cooking Fuel in Household - Social Group-wise Percentages

Primary Cooking Fuel	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Firewood	32.18	41.32	12.62	10.29	8.69	1.40	16.00
Kerosene	0.69	0.00	0.29	3.42	0.45	0.62	0.67
LPG	66.84	58.68	86.36	86.29	90.86	97.75	82.83
Others	0.26	0.00	0.63	0.00	0.00	0.23	0.43
DK/RF	0.03	0.00	0.11	0.00	0.00	0.00	0.07
Total	100	100	100	100	100	100	100

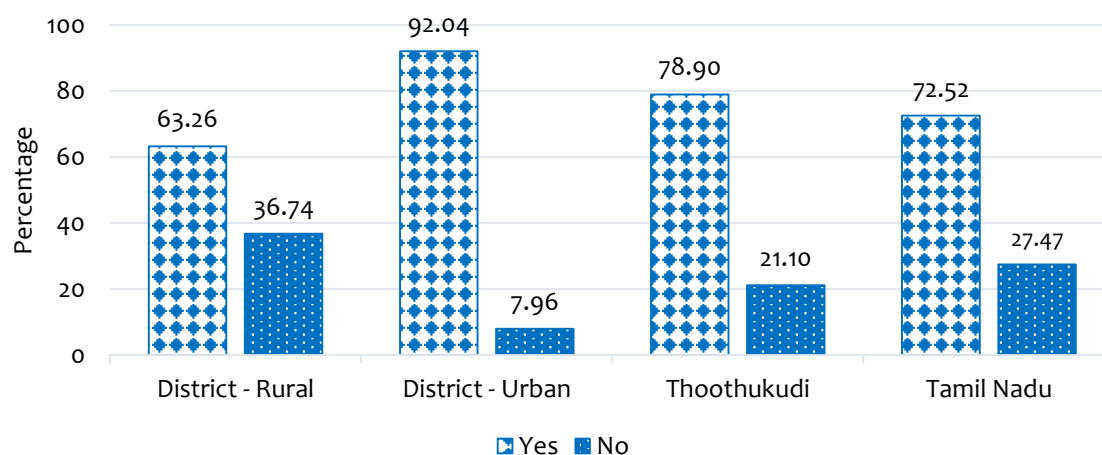
*Others Include Electricity, Gobar Gas, Solar Energy, etc.

Table 3.23 shows that, almost all the General households and more than 85 percent of the BC, MBC and DNC households were using LPG as the primary cooking fuel. Almost one-third of the SC households still used firewood as the primary cooking fuel.

3.5.6 Sanitation

The PBS estimates on households with and without latrine is given in Chart 3.20.

Chart 3.20 Presence of Latrine within the Premises of the Household



The percentage of households with latrine within the house premises had increased from 49.98 percent in 2011 (Census, 2011) to 78.90 percent in 2018. As per the state estimates, Thoothukudi district was positioned eighth among the 32 districts in terms of this indicator (TNHPS-PBS, 2021). The percentage of households equipped with latrine facilities in the district was higher than the state level estimate. It is pertinent to note that more than one-third of the rural households did not have access to a latrine within their house premises.

Table 3.24 Presence of Latrine within the premises of the Household - Social Group-wise Percentages

Latrine within House Premises	Social Group						
	SC	ST	BC	MBC	DNC	General	Thoothukudi
Yes	52.68	58.63	87.23	79.82	75.58	99.57	78.90
No	47.32	41.37	12.77	20.18	24.42	0.43	21.10
Total	100	100	100	100	100	100	100

Table 3.24 shows the presence of latrine within the premises of the household across various social groups. While almost all the General category households and more than three-quarters of BC, MBC and DNC households had a latrine within the premises of the house, close to half of the SC households did not have latrine facilities within the premises of the household.

The presence of latrine facilities in the premises of households owning different types of houses in Thoothukudi district are compared in Chart 3.21.

Chart 3.21 Presence of Latrine in the Premises of Different Types of Houses – Area-wise

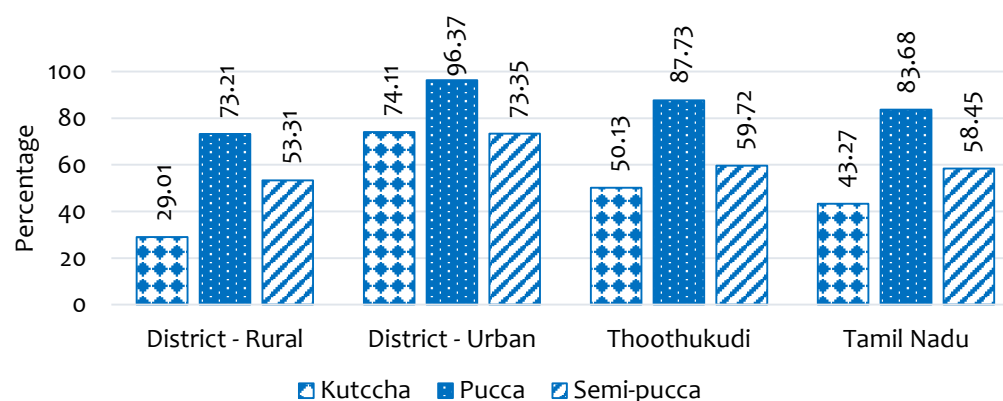


Chart 3.21 shows that the percentage of pucca houses with latrine facilities was higher than for semi-pucca and kutcha houses in the district. The percentages of latrine facilities in kutcha, pucca and semi-pucca houses in the district were higher than their respective state estimates. A higher number of kutcha, pucca and semi-pucca houses in urban areas of the district had latrine facilities than rural areas.

The percentage of total households in the district following open defecation had declined from 46.08 percent in 2011 (Census, 2011) to 20.12 percent in 2018 (TNHPS-PBS, 2021). The alternative practices of defecation followed by 21.1 percent of the district’s households (see Chart 3.20) that did not have a latrine within the premises of the house is shown in Chart 3.22.

Chart 3.22 Alternate Practices of Defecation by the Households without Latrine

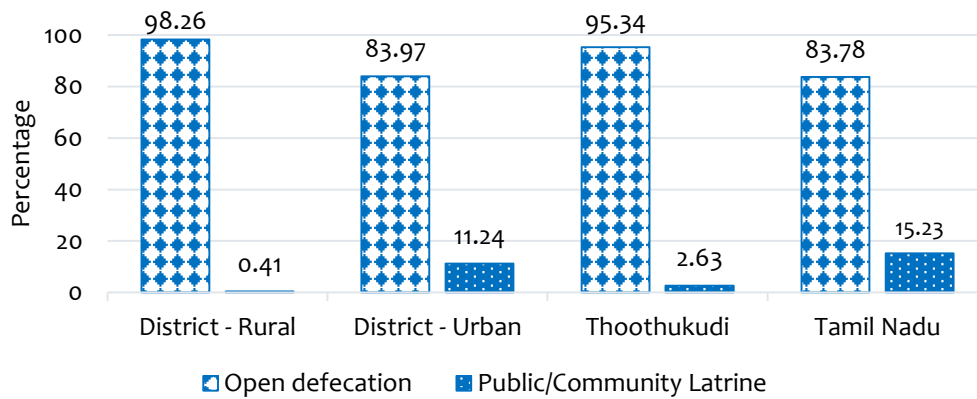


Chart 3.22 shows that 95.34 percent of households without latrine within the premises of the house in Thoothukudi district were following open defecation, which was considerably higher than the state level estimate. The practice of open defecation was higher in rural areas than urban areas of the district. As per the state PBS report, Thoothukudi district was ranked twenty first in terms of the percentage of total households following open defecation.

4. Conclusion and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of Thoothukudi district was conducted from the sample of 4,999 households in the district who were willing to participate in the survey. The survey focused on five major indicators: i) demographic indicators, ii) development indicators, iii) socio-economic indicators, iv) household income and v) basic infrastructure.

The literacy rate in Thoothukudi district was higher than the state estimate. The district was ranked third in terms of literacy rate, preceded by Kanniyakumari and Chennai districts. The district estimates on the percentage of households owning at least one household asset was higher than the state estimate. Although the mean annual household income of the district was 3.99 percent lesser than the state estimates, Thoothukudi was one among the top ten districts in terms of mean annual household income. Thoothukudi was also one among the top ten districts in terms of electrification and in terms of presence of latrine facilities within the house premises. Consequently, the percentage of households following open defecation was lesser compared to the state estimate. The district estimates on the percentage of households using LPG as the primary cooking fuel was higher than the state estimate. Consequently, the use of firewood as the main cooking fuel was lesser than the state estimate.

There are certain indicators in the district which merit attention. Though the district was ranked third in the state in terms of literacy rate, there was a gender gap in literacy rate and attainment of formal schooling in the district, especially in rural areas. A large proportion of females above the age of 14 who were not in the labour force were homemakers, though a large proportion of males in the same group were students. Policies targeted at improving the education status of women may be crucial to close this gender gap. A social group-wise disparity also existed in the district where the prevalence of formal education was lower among the SC and DNC households compared to other social groups.

The percentage of employed population in the district was lesser than the state estimate. The district was placed first in the state in terms of unemployed population. While the female work participation was on par with the state estimate, despite gains made in female literacy and formal education, female work participation continues to be significantly lower than that of males. A social group-wise pattern in work type was observed. The SC and DNC population was largely engaged as casual labourers, which yielded lower incomes. Policy interventions aimed at upskilling these target groups may help reduce these disparities.

Among the agricultural land-holding households, almost two-thirds were dependent on rain-fed agriculture, which was much higher than the state estimate. Watershed programmes and Irrigation facilities may be developed to enhance the livelihood of the population dependent on agriculture.

Almost 30 percent of rural households and more than 30 percent of the SC households in the district were still using firewood as the main cooking fuel. Policies targeted specifically towards these sections could help increase their adoption of LPG. Social group-wise targeting of policy might also be essential for promoting latrine facilities within the house premises as its absence was relatively high among SC and DNC households in the district.

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**A collaborative project between
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The Tamil Nadu Household Panel Survey (TNHPS) is designed as a longitudinal survey where a set of sample households in Tamil Nadu will be surveyed at specific intervals to analyse the change in their socio-economic conditions over time. The TNHPS aims to analyse how individuals, families, communities, and society are transforming in Tamil Nadu. Understanding this transformation is important for informed policy-making and for society in today's modern world where open links with other states and countries lead to enormous movement of people, ideas, technology, capital, and goods and services. The Pre-Baseline Survey (PBS) elicited information from 2,12,282 households across different districts of Tamil Nadu on a comprehensive set of socio-economic indicators. This serves as the sampling frame for the Baseline Survey (BLS) of subsequent rounds of comprehensive surveys of 7,45,653 individuals in the state.

Based on the information collected during the PBS 2018-19, this report provides a baseline on key socio-economic and demographic indicators of the district along with brief notes on the methods and processes followed in collecting, processing and analysis of data. As the first state-level initiative for collecting comprehensive household panel data through digital data collection methods, TNHPS emerges as an important source of information for evidence-based policymaking in the state.



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