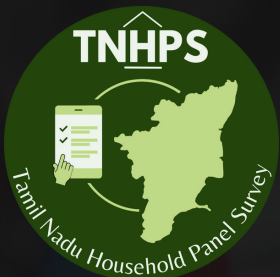


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Tiruvannamalai



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**

Tiruvannamalai District

February 2024

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the Department of Economics and Statistics,
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Summary of PBS Findings

Demographic Indicators

- Tiruvannamalai had a sample size of 7,529 households, of which 64.04 percent of households were from rural areas and 35.96 percent of households were from urban areas.
- The district had a huge demographic dividend with more than 60 percent of the population aged between 6 and 45 years. Almost one-third of the population was between 26-45 years of age.
- The MBC and BC social groups were the largest in number, together constituting around 68 percent of the total households in the district.

Education

- The PBS estimates showed that the literacy rate in the district had increased from 74.21 percent (Census, 2011) to 79.74 percent in 2018 but continued to be lesser than the state average of 85.40 percent.
- A wide gender gap in literacy rate at 16.33 percent prevailed in the district in 2018, which was higher than the state gender gap at 10.82 percent. The gender gap in literacy rate was higher in rural areas at 17.54 percent than in urban areas at 12.52 percent.
- While more than 90 percent of the General category population in the district had received formal education, just more than half the ST population had done so.

Employment

- The share of unemployed population at 3.93 percent was higher in the district compared to the state at 3.50 percent. More than half the population at about 54.20 percent was employed and the rest at 41.76 percent were not in the labour force.
- While almost three quarters—about 70.43 percent—of the male population was employed, the female work participation was around 38.66 percent, higher than the state estimate.
- Around 59.15 percent of the female population was not in the workforce, and among these, majority of them at 74.45 percent were associated with attending to domestic duties as homemakers.
- Around 30.49 percent of the employed population depended on casual labour in the agricultural sector for employment. The district provided employment

opportunities in the agriculture sector to around 51 percent of the SC and around 46 percent of the MBC employed population.

- While self-employed non-agriculture sector was predominant in urban areas, casual labour in the agricultural sectors was most common in rural areas of the district.

Land Ownership and Assets

- The percentage of households owning agricultural land in the district at 34.17 percent was much higher than that at the state level estimate of 19.41 percent. General, BC and MBC category households were the predominant agricultural landholders in the district.
- Almost two-thirds of the households that owned agricultural land in Tiruvannamalai district possessed irrigated land for agriculture.
- Around 94.28 percent of the agricultural land-owning households in the district were holding either marginal or small agricultural lands—less than two hectares.
- Around 37.18 percent of the households in Tiruvannamalai district owned at least one agricultural, allied agricultural or fishing asset. This was higher than the state estimate at 20.92 percent.
- While majority of the General category households owned at least one household asset, more than a quarter of the ST households did not even own a mobile phone.

Household Income

- The mean annual household income of Tiruvannamalai district was ₹84,309, lesser than the state PBS estimate of ₹1,42,752; in urban areas it was ₹1,21,455 and in rural areas it was ₹72,252. Tiruvannamalai was ranked thirty-first out of 32 districts with respect to this parameter.
- The mean household income was higher among the households with salaried income and lower among the households that depended on agriculture, allied agriculture and wages.
- The Gini coefficient for income inequality in Tiruvannamalai district (0.552) was lower than the state estimate (0.563). The income inequality across households in the urban areas of the district (0.546) was higher than rural areas (0.537).
- While more than half of the SC and BC households and around half of the General category households in Tiruvannamalai district expected an increase in their future income, only 18.18 percent of ST households expected an increase.

Housing and Drinking Water

- The proportion of households in the district living in their own house at 90.47 percent was much higher than the state level estimate of 75.16 percent. While more than 95 percent of households in rural areas lived in their own house, around a quarter of urban households were relying on rented houses for their stay.
- Out of the 90.47 percent households that lived in own house in the district, 22.28 percent of houses were built under a government scheme, which was higher than the state estimate of 14.12 percent.
- More than two-thirds of the households in Tiruvannamalai district were living in pucca houses.
- The primary source of water for households in the state was piped water into the dwelling in urban areas and public tap/standpipe in rural areas. In Tiruvannamalai district, public tap/standpipe was predominantly used both in urban and rural households.

Electricity and Cooking Fuel

- Tiruvannamalai district witnessed an incline in electrification in its rural areas between 2011 and 2018, with an increase from 91.76 percent in 2011 to 97.22 percent in 2018.
- Although the use of LPG as the primary cooking fuel had increased tremendously in the district from 2011 to 2018 encompassing around two-thirds of the households, firewood was still used by around one-third of the households.
- More than 85 percent of the ST households and more than one-third of the SC and MBC households still used firewood as the primary cooking fuel.

Sanitation

- The percentage of households with latrine within the premises of the house had increased from 22.78 percent in 2011 to 55.15 percent in 2018 as per the PBS estimates. Tiruvannamalai district was positioned twenty-seventh in the state among the 32 districts in terms of this indicator.
- Around half of the rural households and around 60 percent of the SC and ST households did not have latrine access within their house premises.
- The percentage of total households in the district following open defecation had declined considerably from 75.82 percent in 2011 to 44.39 percent in 2018.

1. Introduction

1.1 Profile of Tiruvannamalai District

Tiruvannamalai district in Tamil Nadu was formed in the year 1989 from the bifurcation of the erstwhile North Arcot district into the present-day Tiruvannamalai and Vellore districts. It is in the northern region of the state, with Vellore in the north, Kancheepuram and Viluppuram in the east, Viluppuram in the south, and Dharmapuri and Krishnagiri in the west.

According to Census (2011), Tiruvannamalai had a total population of 24.65 lakhs, accounting for approximately 3.42 percent of Tamil Nadu's total population, which was 7.21 crores. The district comprised 5.89 lakh households, with 79.92 percent residing in rural areas. The male population was 50.14 percent, and the female population was 49.86 percent. Tiruvannamalai demonstrated a child-sex ratio of 930.31 compared to the state average of 943.27. Within the social groups, 22.93 percent of the population belonged to the Scheduled Castes, while 3.69 percent belonged to the Scheduled Tribes. The literacy rate in Tiruvannamalai district stood at 74.21 percent, compared to the state's average of 80.09 percent. The male literacy rate was reported to be 83.11 percent, while the female literacy rate was reported to be 65.32 percent, highlighting the need for investment in women's education.

In the fiscal year 2018-19, Tiruvannamalai's Net District Domestic Product was ₹26,90,236 lakh, ranking twenty-first among all districts. The district's per capita Net District Domestic Product was recorded at ₹1,00,348, ranking thirtieth among districts. Nonetheless, the per capita Net District Domestic Product of the district was significantly below the Tamil Nadu average of ₹1,83,884 (Department of Economics and Statistics, 2023). In terms of sectoral distribution, the primary sector (agriculture and allied) contributes approximately 16 percent to its domestic income, while the secondary (industry) and tertiary (service) sectors contribute approximately 28 percent and 56 percent, respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu State Planning Commission (2017a), Tiruvannamalai ranked twenty-seventh in terms of the Human Development Index with a score of 0.596, indicating the need for improving the development of the general population. It ranked twenty-sixth in the Gender Inequality Index with a score of 0.101, demanding attention to expanding resources to close the gender divide. In terms of the Child Development Index, the district ranked thirty-first with a score of 0.426, calling for the need to invest more in developing the youth. Additionally, Tiruvannamalai ranked nineteenth in terms of the

Multidimensional Poverty Index with a score of 0.53, considered to be a modest ranking.

Tiruvannamalai district faces economic challenges with lower rankings in Net District Domestic Product and per capita income. The district requires substantial efforts to enhance human development, reduce gender inequality, improve child development, and address multidimensional poverty for a more balanced progress.

1.2 About the TNHPS and 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 analyse 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. As Census (2021) has not yet commenced, the PBS estimates act as a valid benchmark for the Government of Tamil Nadu in terms of socio-economic development since 2011. 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.

This report analyses data from the PBS for the Tiruvannamalai district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Tiruvannamalai (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Tiruvannamalai district. The sample size for the district was 6,529 households, among which 4,181 households were from rural areas and 2,348 households were from urban areas. The blocks covered during the survey were: Anakkavur, Chengam, Cheyyar, Keelapennathur, Peranamallur, Polur, Thandrapet, Thellar, Thurinjapuram, Tiruvannamalai, Vandavasi, Vembakkam and West Arani.

2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 7,533 households in Tiruvannamalai district were selected using a multi-stage stratified sampling design¹. The final sample size for PBS was 7,529 households, of which 64.04 percent of households were from rural areas and 35.96 percent of households were from urban areas of the district. The area-wise distribution of 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		Tiruvannamalai	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	4,181	87.41	2,348	85.38	6,529	86.67
Non-Response	169	3.53	175	6.36	344	4.57
Non-sample	433	9.05	227	8.25	660	8.76
Total	4,783	100	2,750	100	7,533	100

Tiruvannamalai district had a lower response rate—willingness of households to participate in the TNHPS-PBS—of 86.67 percent compared to the state response rate of 96.5 percent. Around 4.57 percent of households were not willing to participate in the survey. About 8.76 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 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.

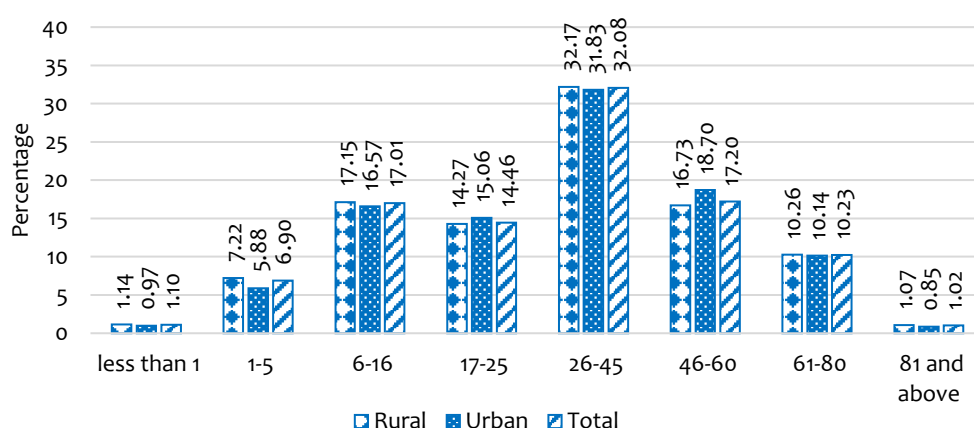
3. Key Findings

3.1 Demographic Indicators

As per the PBS estimates, the average household size³ in the district had declined from 4.20 in 2011 (Census, 2011) to 3.68 in 2018. Around 49.71 percent of the population in the district were male, and 50.28 percent of the population were female. Around 17.55 percent of the households in the district were headed by females, which was lower than the state estimate of 18.93 percent (TNHPS-PBS, 2021).

Chart 3.1 shows the age-wise distribution of the population in Tiruvannamalai district.

Chart 3.1 Age-wise Distribution of Population



As per the PBS estimates, around one third of the population in the district were in the age group of 26 to 45 years. The age group—17-60 years—in the district was 63.74 percent, which was lower than the state estimate of 66.00 percent (TNHPS-PBS, 2021).

The percentage of currently married male population at 72.41 percent was higher than the currently married female population at 69.35 percent in Tiruvannamalai district. The widowed female population at 19.10 percent was notably higher than the widowed male population at 3.44 percent. The percentage of never married male population at 23.30 percent was higher than the percentage of never married female population at 10.24 percent.

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 96.81 percent of the households practiced Hinduism, 2.13 percent practiced Islam and 0.60 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	28.67
ST	0.78
BC	31.64
MBC	36.41
General	2.35
DK/RF	0.16
Total	100

*DNC category was not covered in the sample as there was minuscule population

As per the PBS estimates, the highest percentage of households in Tiruvannamalai district belonged to MBC category. The percentages of SC and ST households in the district were 28.67 percent and 0.78 percent in 2018.

3.2 Development Indicators

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

3.2.1 Education

The change in literacy rate of Tiruvannamalai district 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	Rural		Urban		Tiruvannamalai		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	81.18	86.34	90.80	93.20	83.11	88.02	86.77	90.97
Female	62.05	68.80	78.13	80.68	65.32	71.69	73.40	80.15
Total	71.62	77.44	84.41	86.88	74.21	79.74	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 Tiruvannamalai district at 74.21 percent was lesser than the state average of 80.09 percent. The PBS estimates show that in the year 2018, the literacy rate in Tiruvannamalai district increased to 79.74 percent, which continued to be lower than the state average of 85.40 percent. Nevertheless, the district registered a 5.53 percent increase in literacy rate in this period while the state registered only a 5.31 percent increase. The difference in literacy rate between the state average and Tiruvannamalai district was 5.88 percent in 2011, which declined to 5.66 percent in 2018 as per the PBS estimates. In terms of literacy rate, Tiruvannamalai was ranked low at twenty-eighth among the then 32 districts in 2018 (TNHPS-PBS, 2021).

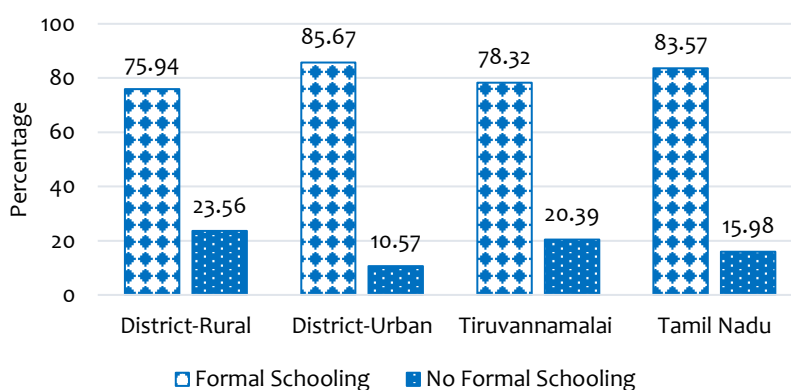
Both male and female literacy rates in Tiruvannamalai district recorded an increase during the period under consideration, though a wide gender gap still prevailed. The gender gap in literacy rate had declined from 17.79 percent in 2011 to 16.33 percent in 2018, which was still higher than the state 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 9.44 percent lower than the urban literacy rate in 2018. The gender gap in literacy rate was higher in rural areas at 17.54 percent than in urban areas at 12.52 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 Tiruvannamalai district.

Chart 3.2 Formal Schooling of the Population (Age 7 and above) – Area-wise Percentages



*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, although more than three quarters of the specified population in the district attended formal schooling, The estimate was lower compared to the state

estimate. The percentage of population with formal education in urban areas was much higher than in rural areas of the district.

Chart 3.3 Formal Schooling of the Population – Gender-wise Percentages

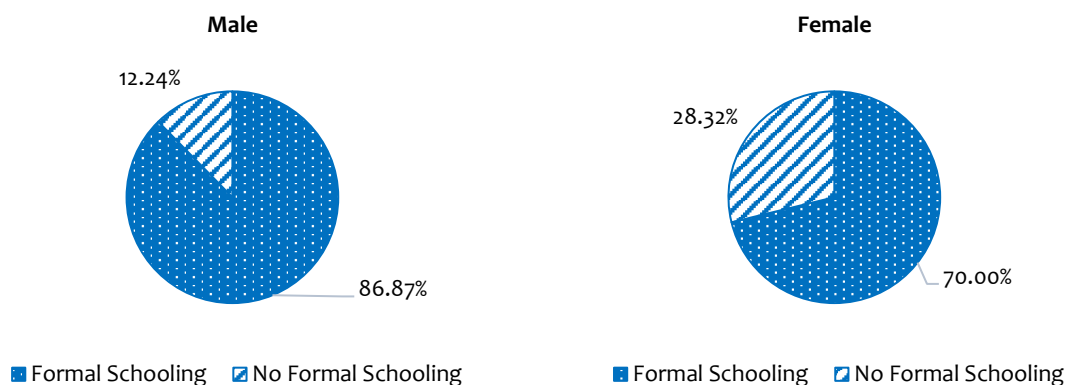


Chart 3.3 shows that the percentage of the population that acquired formal education in the district was much higher among males compared to females, again denoting a wide gender gap, like in literacy.

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

Education Status	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Formal Schooling	72.46	54.78	84.00	77.99	93.72	78.32
No Formal Schooling	26.78	38.32	15.27	19.86	6.09	20.39
Others and DK/RF	0.76	6.90	0.73	2.14	0.19	1.29
Total	100	100	100	100	100	100

Table 3.3 shows a wide variation across social groups in formal schooling status. While more than 90 percent of the General category population in the district received formal education, just more than half the ST population had done so.

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

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

Educational Attainment	Area Type		
	Rural	Urban	Tiruvannamalai
Primary (I to V)	26.10	22.70	25.17
Middle School (VI to VIII)	23.07	20.30	22.31
High School (IX to X)	23.63	21.25	22.97
Higher Secondary (XI to XII)	15.00	14.40	14.83
Bachelor's degree	5.79	9.20	6.72
Diploma Degree	3.50	3.83	3.59
Post Graduate Degree	2.24	4.11	2.76
Other Higher Education	0.03	0.00	0.02
Others/DK/RF	0.65	4.20	1.62
Total	100	100	100

Around 85.28 percent of the district's population completed schooling up to higher secondary level. The population that completed tertiary education—such as bachelor's degree, diploma, or post graduate degree and above—was 13.09 percent, which was lower than the state estimate of 20.02 percent. Also, this figure was higher for urban areas than the rural areas of the district.

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

Educational Attainment	Gender		
	Male	Female	Tiruvannamalai
Primary (I to V)	23.85	26.74	25.17
Middle School (VI to VIII)	21.49	23.29	22.31
High School (IX to X)	24.81	20.79	22.97
Higher Secondary (XI to XII)	14.29	15.48	14.83
Bachelor's degree	6.95	6.45	6.72
Diploma Degree	4.88	2.05	3.59
Post Graduate Degree	2.68	2.85	2.76
Other Higher Education	0.04	0.00	0.02
Others/DK/RF	1.02	2.34	1.62
Total	100	100	100

Table 3.5 shows that a higher percentage of females at 86.30 percent had completed schooling up to higher secondary level, compared to males at 84.44 percent. In tertiary education, a higher percentage of females 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	General	Tiruvannamalai
Primary (I to V)	24.62	30.73	26.03	25.21	16.43	25.17
Middle School (VI to VIII)	22.48	23.28	22.06	22.49	20.99	22.31
High School (IX to X)	25.52	18.40	21.44	22.54	23.15	22.97
Higher Secondary (XI to XII)	14.45	10.95	15.23	14.97	13.05	14.83
Bachelor's degree	5.85	3.41	7.63	6.26	12.21	6.72
Diploma Degree	3.77	2.04	3.67	3.18	7.22	3.59
Post Graduate Degree	2.28	0.00	3.01	2.67	6.76	2.76
Other Higher Education	0.00	0.00	0.06	0.00	0.00	0.02
Others/DK/RF	1.03	11.19	0.87	2.68	0.20	1.62
Total	100	100	100	100	100	100

The social group-wise analysis in Table 3.6 shows that most of the SC and ST population in the district had completed only primary and secondary school. The percentage of population with tertiary education—bachelor’s degree and above—was quite high among the General category at 26.19 percent, followed by the BC category at 14.37 percent. Similar to the national and state level trend, the percentage of population with higher educational qualification in the district was lower among SC and ST categories.

About 20.39 percent of the population had not received formal education in Tiruvannamalai 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	Tiruvannamalai
Yes	6.34	11.41	6.98
No	93.52	88.57	92.89
DK/RF	0.14	0.02	0.12
Total	100	100	100

Table 3.7 shows the functional literacy status of the population with no formal schooling in the district. Only 6.98 percent of the population without formal schooling had functional literacy. The specified population group in urban areas of the district had better functional literacy 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	General	Tiruvannamalai
Yes	8.61	5.60	4.90	6.30	27.41	6.98
No	91.22	94.40	95.10	93.53	72.59	92.89
DK/RF	0.16	0.00	0.00	0.17	0.00	0.12
Total	100	100	100	100	100	100

Table 3.8 shows the functional literacy status of the population with no formal schooling, across various social groups. Though, functional literacy was low across all social groups, General category had the highest proportion of functional literacy in the district.

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 Percentages

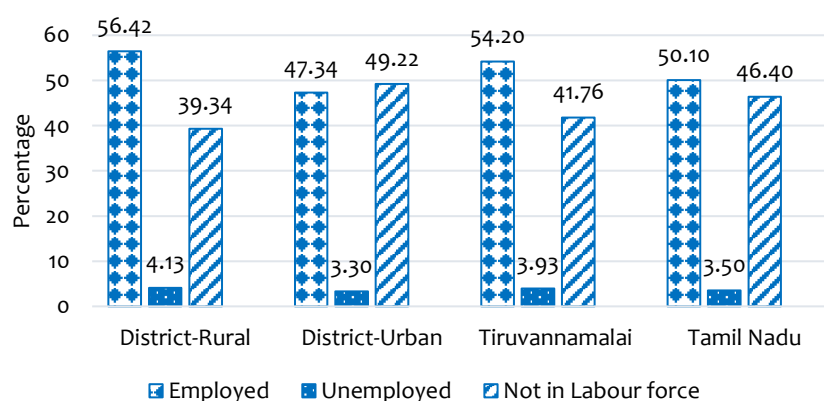


Chart 3.4 shows that the overall percentage of employed population—14 years and above—in the district was higher than the state estimate. Also, the share of unemployed population was higher in the district compared to the state. The percentage of population that was employed was higher in rural parts of the district than the urban. The unemployment status in rural areas of the district at 4.13 percent was much higher than the state rural estimate of 3.6 percent, while the district urban unemployment status at 3.3 percent was similar to the state urban estimate of 3.3 percent. Tiruvannamalai district was ranked sixth among all districts in Tamil Nadu in terms of employed population and ranked twelfth in terms of the unemployed population.

Chart 3.5 Employment Status of the Population – Gender-wise Percentages

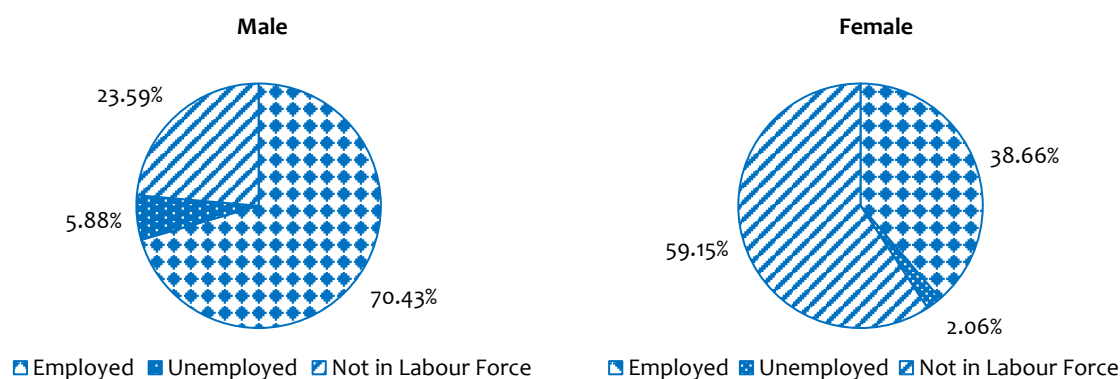


Chart 3.5 shows the gender-wise employment status of the population aged 14 years and above. While around 70.43 percent of the male population was employed, the female work participation was around 38.66 percent. Decreased female labour force participation has been well documented at the national level (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 PBS estimate of 29.96 percent. Around 59.15 percent of the female population was not in the workforce, and among these, majority of them at about 74.45 percent were associated with attending to domestic duties as homemakers (see Chart 3.7). As per the state estimates, Tiruvannamalai district was ranked fourth in terms of employed female population and ranked twelfth lowest in terms of female unemployment.

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

Work Type	Area Type		
	Rural	Urban	Tiruvannamalai
Self Employed Agriculture	13.81	6.00	12.14
Self Employed Non-Agriculture	7.13	26.64	11.30
Self Employed Allied Agriculture	2.38	2.97	2.50
Casual Labourer Agriculture	35.59	11.71	30.49
Casual Labourer Industry	6.14	14.37	7.90
Casual Labourer Service	9.00	13.64	10.00
Casual Labourer (Others)	7.57	1.12	6.19
Salaried Worker Government	3.97	7.16	4.65
Salaried Worker Private	8.21	14.77	9.61
Multiple Occupation	5.87	1.28	4.88
Other	0.13	0.30	0.17
DK/RF	0.22	0.05	0.18
Total	100	100	100

Around 30.49 percent of the employed population depended on casual labour in the agricultural sector for employment. While the greatest proportion of the working population in the state were salaried workers in the private sector at 21.82 percent, as per the state estimates (TNHPS-PBS, 2021), majority of the working population in Tiruvannamalai district were casual labourers in the agriculture sector. Self-employed in non-agriculture sector was predominant in urban areas and casual labourers in the agricultural sector was most common in rural areas of the district.

A social group-wise distribution of the employed population across various work types is given in Table 3.10.

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

Work Type	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Self Employed Agriculture	5.12	22.67	10.84	18.18	23.03	12.14
Self Employed Non-Agriculture	9.01	12.90	18.13	7.52	15.48	11.30
Self Employed Allied Agriculture	2.84	26.59	1.47	2.36	3.68	2.50
Casual Labourer Agriculture	43.09	13.16	25.50	25.40	11.06	30.48
Casual Labourer Industry	6.91	2.97	10.85	6.55	6.12	7.90
Casual Labourer Service	10.69	13.62	11.10	8.66	5.60	10.00
Casual Labourer (Others)	10.47	1.63	0.78	7.37	0.09	6.19
Salaried Worker Government	3.76	1.87	6.53	3.79	9.48	4.65
Salaried Worker Private	6.52	2.29	11.63	10.17	23.45	9.61
Multiple Occupation	1.52	1.53	2.73	9.54	1.57	4.88
Other	0.04	0.00	0.33	0.14	0.46	0.17
DK/RF	0.02	0.76	0.13	0.34	0.00	0.18
Total	100	100	100	100	100	100

Tiruvannamalai being a rural district provided employment opportunities in the agriculture sector to about 51 percent of the SC and around 46 percent of the MBC employed population. The SC population involved as casual labourers in agriculture in the district at 43.09 percent was higher than the state estimates for SC population at 33.33 percent (TNHPS-PBS, 2021). Next to agriculture, self-employed in non-agriculture sector was the most opted employment by BC population in the district. Whereas for SC population, casual labour in service sector was the second most opted employment. Those belonging to the General and BC categories were predominantly involved in salaried work in the private sector.

The PBS also enquired about the composition of the population that was not in the labour force, which is discussed below.

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

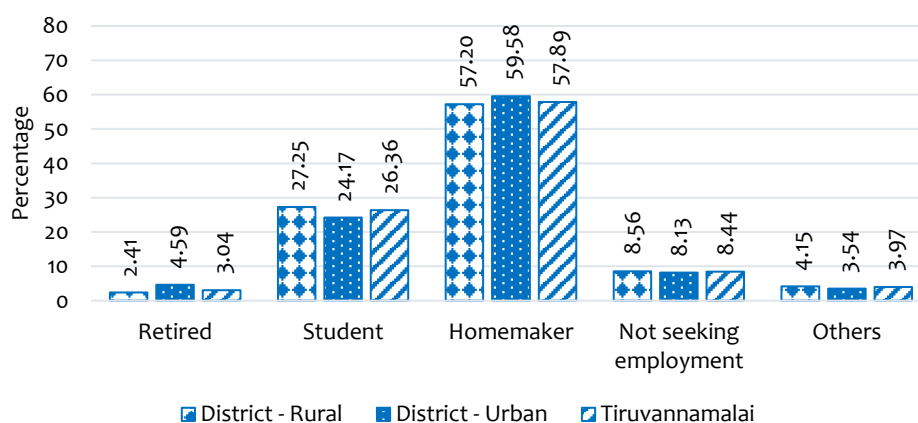
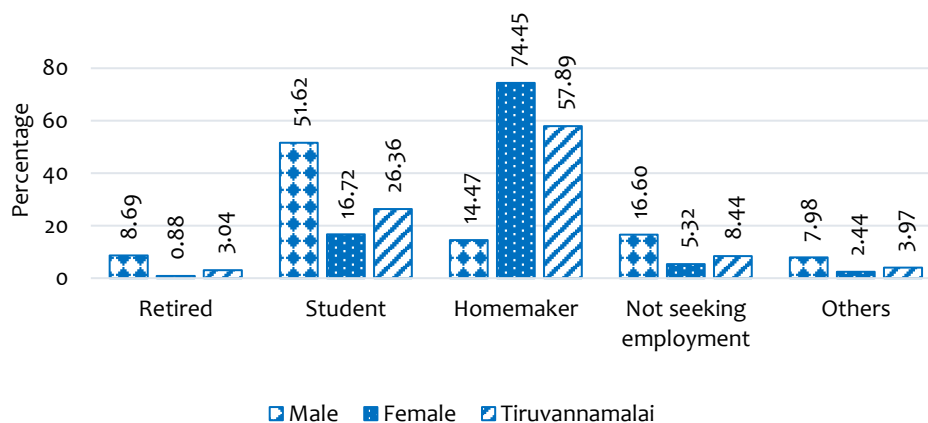


Chart 3.6 shows that, similar to the trend at the state level, more than half the population that was not in the labour force in the district comprised homemakers involved in unpaid domestic duties of the household, followed by students. The proportions of the population that were not seeking employment or were students were higher in rural areas than urban areas, whereas the percentages of retired people and homemakers were higher in urban areas than rural areas.

Chart 3.7 Composition of Population Not in the Labour Force – Gender-wise Percentages



The gender-wise distribution of the population currently not in the labour force aged 14 and above is given in Chart 3.7. 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 16.72 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.

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

Current Status	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Retired	0.86	4.37	4.38	2.93	9.38	3.04
Student	29.09	25.79	24.07	27.55	13.79	26.36
Homemaker	59.33	50.34	57.12	57.00	64.10	57.89
Not seeking employment	7.38	14.51	9.36	8.95	1.13	8.44
Others	2.92	3.54	4.84	3.27	11.60	3.97
DK/RF	0.42	1.44	0.24	0.30	0.00	0.31
Total	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 MBC category had a higher percentage of not-working population as students compared to the other social groups. Although majority of the employed SC and MBC population were casual labourers (see Table 3.10), the not-working population belonging to the student category was high for these two social groups.

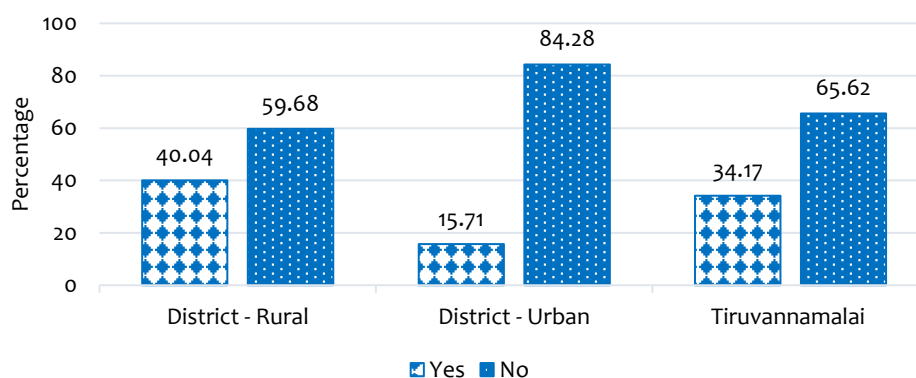
3.3 Socio-Economic Indicators

The PBS estimates for various socio-economic indicators of Tiruvannamalai 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 Tiruvannamalai 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 were 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 – Area-wise Percentages



Tiruvannamalai is a largely rural and agricultural district. The percentage of households owning agricultural land in the district was much higher than the state level estimate of 19.41 percent. The district was ranked eighth in the state in terms of agricultural land ownership. 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 of 29.00 percent and 8.61 percent respectively (TNHPS-PBS, 2021).

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

Type of Agricultural Land	Area Type		
	Rural	Urban	Tiruvannamalai
Only Irrigated Agriculture Land	65.33	66.04	65.41
Only Unirrigated Agriculture Land	25.19	21.70	24.80
Both Irrigated and Unirrigated Agriculture Land	9.32	11.41	9.55
DK/RF	0.17	0.85	0.24
Total	100	100	100

Table 3.12 shows that, as per the PBS estimates, almost a quarter of the households that owned agricultural land in Tiruvannamalai district depended on rain-fed irrigation alone. A similar percentage of urban households owned irrigated agricultural land compared to the rural households in the district. Dug wells, tube wells, canals and tanks are the major sources of irrigation in Tiruvannamalai district (Tamil Nadu State Planning Commission, 2017b). The proportion of households having irrigated agricultural land was higher in the district at 65.41 percent compared to the state estimate of 50.03.

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

Agricultural Land Ownership	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Yes	19.13	23.99	33.74	44.69	63.53	34.17
No	80.83	76.01	66.10	54.89	36.47	65.62
DK/RF	0.04	0.00	0.16	0.42	0.00	0.22
Total	100	100	100	100	100	100

An analysis of the social group-wise ownership of agricultural land by households in Table 3.13 shows that General, BC and MBC category households were the predominant agricultural landholders in the district.

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	Tiruvannamalai
Marginal (0.01 - 0.99)	78.40	69.74	77.45
Small (1 - 1.99)	16.12	22.63	16.83
Semi Medium (2 - 3.99)	4.49	5.18	4.57
Medium (4 - 9.99)	0.66	1.93	0.80
Large (10 and above)	0.33	0.52	0.35
Total	100	100	100

Table 3.14 shows that 94.28 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares. This figure was higher than the state level estimate of 89.33 percent. The share of semi-medium, medium, and large landholdings was lesser than that of the state estimates of 7.64 percent, 2.26 percent and 0.77 percent respectively.

3.3.2 Ownership of Agricultural, 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, mechanised and non-mechanised boats, amongst the households of Tiruvannamalai district.

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

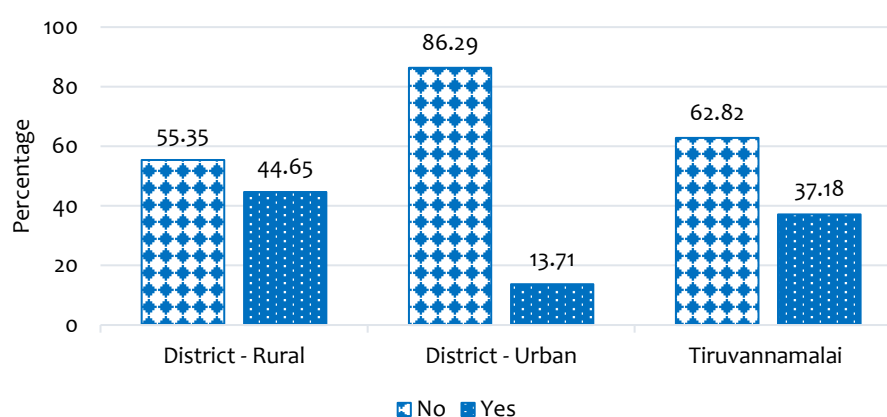
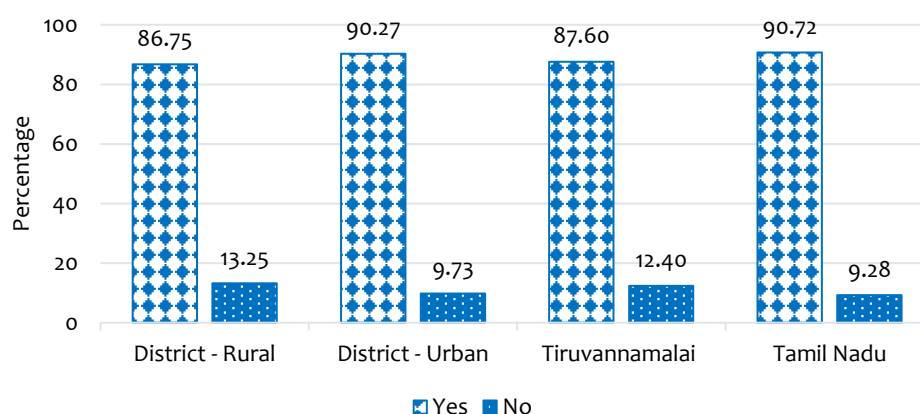


Chart 3.9 shows that 37.18 percent of the households in Tiruvannamalai district owned at least one agricultural, allied agricultural or fishing asset. This estimate was much higher than the state PBS estimate of 20.92 percent. However, the ownership of such assets was lower in rural areas than urban areas. The ownership pattern was higher in both rural and urban areas of the district compared to the state estimates of 32.69 percent in rural and 7.67 percent in urban areas (TNHPS-PBS, 2021).

3.3.3 Presence of Household Assets

Chart 3.10 shows the percentage of households in Tiruvannamalai 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 were the predominantly owned assets in rural areas whereas a combination of refrigerator, two-wheeler and mobile phone was largely owned in the urban areas.

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



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

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

Presence of Household Asset	Social Group					
	SC	ST	BC	MBC	General	Total
Yes	86.39	73.86	90.09	86.36	92.90	87.60
No	13.61	26.14	9.91	13.64	7.10	12.40
Total	100	100	100	100	100	100

The social group-wise ownership of household assets in Tiruvannamalai district is given in Table 3.15. The PBS estimates show that while 92.90 percent of the General category households owned at least one household asset, only 73.86 percent of the ST households in the district owned any such asset. This means that more than a quarter of the ST households did not even own a mobile phone.

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 subsidised items from the Public Distribution System and subsidised LPG connection, for instance. The percentages of households that possessed a ration card in rural and urban areas of Tiruvannamalai district are given in Chart 3.11.

Chart 3.11 Possession of Ration Card – Area-wise Percentages

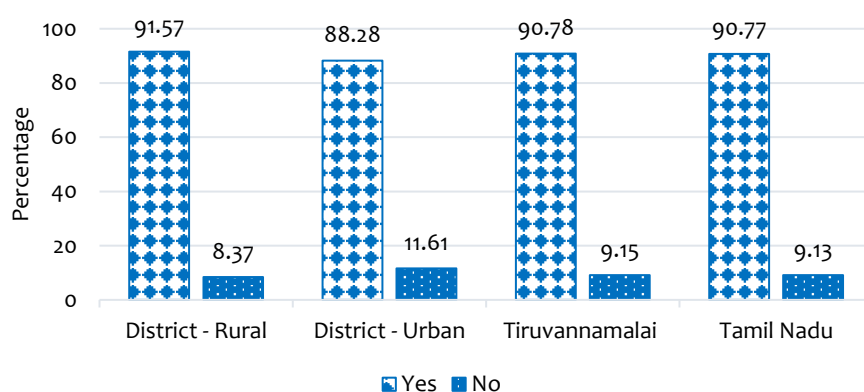


Chart 3.11 shows that the percentage of households that possessed a ration card in the district was similar to the state estimate. Within the district, a higher percentage of rural households possessed ration cards compared to the urban households.

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	General	Tiruvannamalai
Yes	93.13	88.70	88.42	91.45	84.55	90.78
No	6.87	11.30	11.40	8.53	15.45	9.15
DK/RF	0.00	0.00	0.19	0.02	0.00	0.07
Total	100	100	100	100	100	100

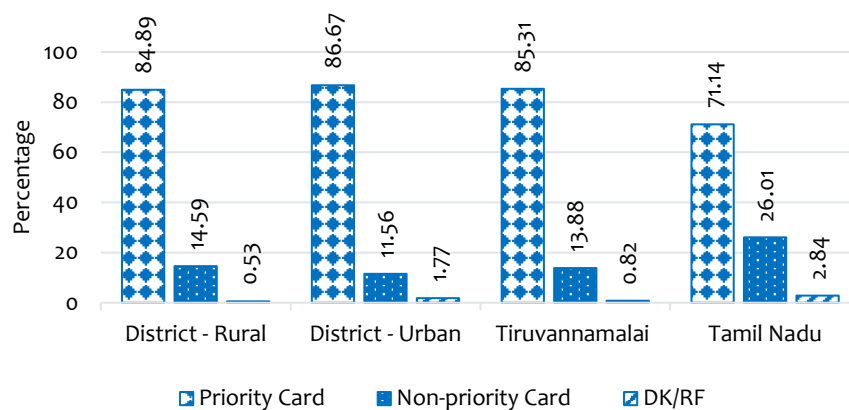
Social group-wise estimates on the possession of ration card at the household level is shown in Table 3.16. More than 80 percent of households belonging to all social groups possessed ration cards in the district.

3.3.5 Type of Ration Card

According to the National Food Security Act (NFSA) 2013, ration cards are broadly categorised 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 Tiruvannamalai district are given in Chart 3.12.

Chart 3.12 Type of Ration Card at the Household Level – Area-wise Percentages



The percentage of households possessing priority ration cards in the district was higher than the state level estimate. A lesser percentage of rural households possessed priority cards than urban households. A large fraction of households, especially in the urban areas, refused to answer this question.

3.4 Household Income

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

In this section, we analyse the annual income of households in Tiruvannamalai district from various sources in the financial year (FY) 2017-2018. The sources of income include income earned from agriculture, allied agriculture, salaried work, self-employed labour, 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 depended on various sources of income in Tiruvannamalai district.

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

Source	Rural	Urban	Tiruvannamalai	Tamil Nadu
Agriculture	26,989	84,829	33,938	61,830
Allied Agriculture	28,510	32,833	29,198	38,576
Salaried	1,41,448	1,84,478	1,55,260	2,29,857
Self Employed	79,223	1,16,467	96,170	1,47,403
Wage Labour	29,965	38,877	31,555	47,734
Other Sources	41,570	77,387	48,465	97,646
Income from all Sources	72,252	1,21,455	84,309	1,42,752

The mean household income was higher among the households with salaried income and lower among the households that depended on agriculture, allied agriculture and wages. Overall, the mean annual household income of Tiruvannamalai district was almost 40.94 percent lesser than the state estimate of ₹1,42,752. Among the then 32 districts, Tiruvannamalai was ranked thirty-first in terms of mean annual household income (TNHPS-PBS, 2021).

In rural areas of Tiruvannamalai district, the mean household income was ₹72,252, which was lesser than the state rural estimate of ₹92,765 (TNHPS-PBS, 2021). Also, the mean annual household income from agriculture was lesser due to various reasons such as high number of marginal landholders and drought during the previous years. The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that engaged in agriculture, allied agriculture and wage labour.

In urban areas of Tiruvannamalai district, the mean household income was ₹1,21,455, which was lesser than the state urban estimate of ₹1,99,629 (TNHPS-PBS, 2021), but higher than the district rural estimate of ₹72,252. The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that depended on allied agriculture and wage labour.

3.4.2 Income Inequality in Tiruvannamalai District

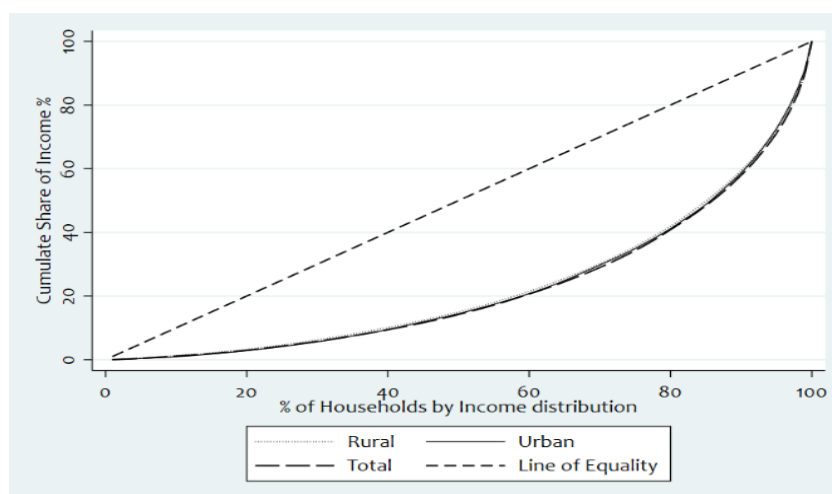
The Gini coefficient measures inequality levels in income or wealth where the coefficient value of 0 denotes perfect equality and 1 denotes perfect inequality (across households). The income inequality in Tiruvannamalai district (0.552) was lower than the state estimate (0.563)⁵. Similar to other districts' estimates, the income inequality across households in rural areas of the district (0.537) was found to be lower than the urban areas (0.546).

Table 3.18 Gini Coefficient of Income Inequality

Area	Gini Coefficient
Rural	0.537
Urban	0.546
Tiruvannamalai	0.552
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 households. Chart 3.13 shows that in Tiruvannamalai, 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 total income.

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 future income 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 variables 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 Tiruvannamalai 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	Tiruvannamalai	Tamil Nadu
Higher	50.69	53.76	51.43	50.06
Lower	8.78	9.21	8.89	8.17
About the same	29.01	26.73	28.46	31.66
DK/RF	11.52	10.30	11.22	10.11
Total	100	100	100	100

While a slightly higher proportion of the urban households compared to that of the rural areas in the district expected their income to increase in the following five years, the percentage of households expecting a decline in their future income was also higher in urban areas compared to that of the rural areas. More than a quarter of the households in the district anticipated their future income to remain the same.

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	General	Tiruvannamalai
Higher	56.76	18.18	56.54	43.77	49.54	51.43
Lower	4.19	16.42	12.57	8.83	14.53	8.89
About the same	30.42	49.93	23.41	30.55	31.55	28.46
DK/RF	8.64	15.47	7.47	16.86	4.38	11.22
Total	100	100	100	100	100	100

While more than half of the SC and BC households and around half of the General category households in Tiruvannamalai district expected an increase in their future income, only 18.18 percent of ST households expected an increase. The General and ST category households also reported a relatively high percentage of decreased future income, compared to the other social groups.

3.5 Basic Infrastructure

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

3.5.1 House Ownership Status

The area-wise percentages of households that live in their own house or stay at a rented house are given in Chart 3.14.

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

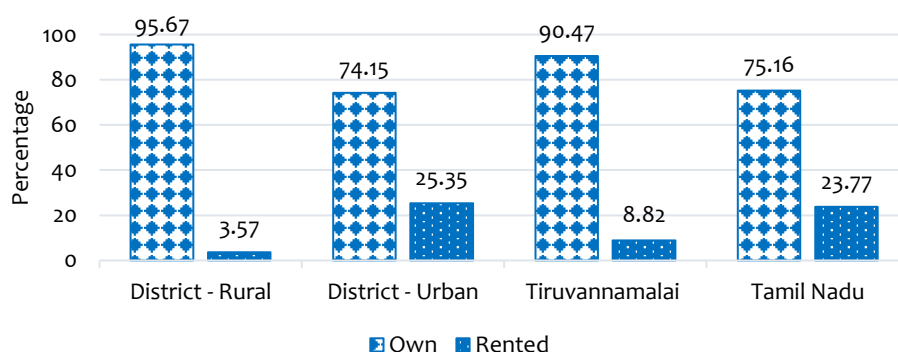


Chart 3.14 shows that the proportion of households living in their own house at 90.47 percent in the district was much higher than the state level estimate of 75.16 percent.

Tiruvannamalai district was ranked fourth among the then 32 districts of Tamil Nadu in terms of percentage of households living in their own house (TNHPS-PBS, 2021). While more than 95 percent of households in rural areas lived in their own house, around a quarter of urban households were relying on rented houses for their stay. Only less than one 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	General	Tiruvannamalai
Own	93.24	87.89	84.27	94.00	87.11	90.47
Rented	6.42	7.59	14.79	5.32	11.80	8.82
Others	0.31	4.52	0.80	0.65	1.09	0.64
DK/RF	0.03	0.00	0.14	0.03	0.00	0.06
Total	100	100	100	100	100	100

Table 3.21 shows that more than 80 percent of all the social category households in the district lived in their own house. Higher percentage of SC and MBC households lived in own house compared to the other social groups.

A detailed analysis of ownership of houses shows that out of the 90.47 percent households (see Chart 3.14) that lived in an own house in the district, 22.28 percent of houses were built under a government scheme, which was higher 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 Government Scheme - Social Group-wise Percentages

House Constructed under Government Scheme	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Yes	49.54	25.35	10.82	10.81	7.02	22.28
No	50.42	74.65	89.18	89.19	92.98	77.71
DK/RF	0.04	0.00	0.00	0.01	0.00	0.01
Total	100	100	100	100	100	100

In Tiruvannamalai district, SC and ST households had the highest percentage of houses built under a government scheme compared to other social groups.

3.5.2 House Type

Based on the material used for wall/roof or the quality of the house, the PBS classifies a house as kutchcha, pucca or semi-pucca. The percentage of houses that come under each type are given below.

Chart 3.15 Types of Houses – Area-wise Percentages

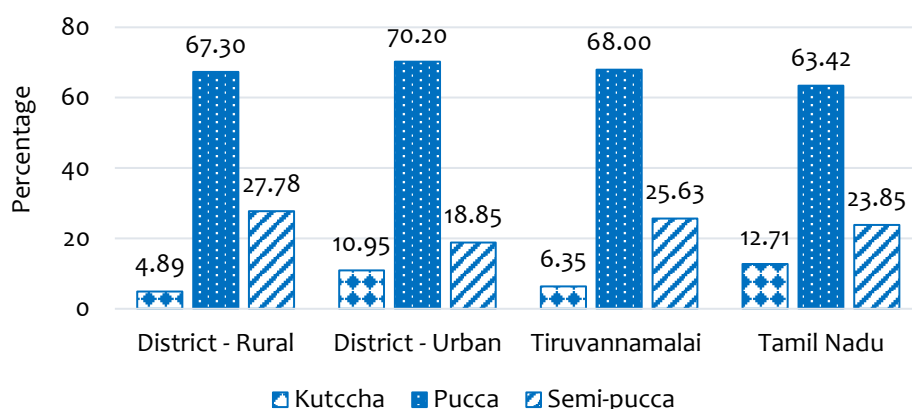
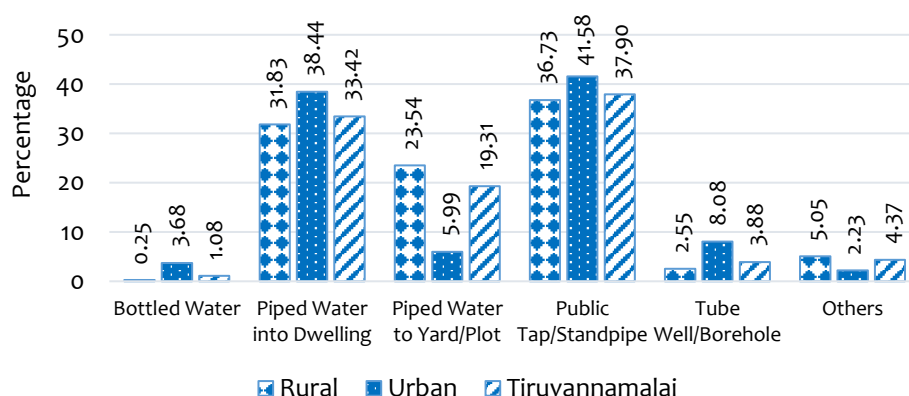


Chart 3.15 shows that more than two-thirds of the households in Tiruvannamalai district were living in pucca houses. The district estimates on households living in pucca houses was higher than the state estimate. The percentage of urban households living in pucca houses in the district was higher than rural households, but lower than the state urban estimate of 75.22 percent.

3.5.3 Primary Drinking Water Source

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

Chart 3.16 Primary Drinking Water Source of Households



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

Chart 3.16 shows that 37.90 percent of households in Tiruvannamalai district were using public tap or standpipe as their primary source of drinking water, which was higher than the state estimate of 32.84 percent. While the state estimates show 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), public tap/standpipe was predominantly used both in urban and rural households of Tiruvannamalai district.

3.5.4 Electricity

Tamil Nadu witnessed mass electrification during the last decade. A comparison of households with an electricity connection between Census (2011) and the state PBS estimates in 2018 (TNHPS-PBS, 2021) shows that the state was close to achieving complete electrification in case of urban areas. The electrification status improved in rural areas as well. Chart 3.17 shows the electrification status of households in Tiruvannamalai district, along with a comparison to the electrification status during Census (2011).

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

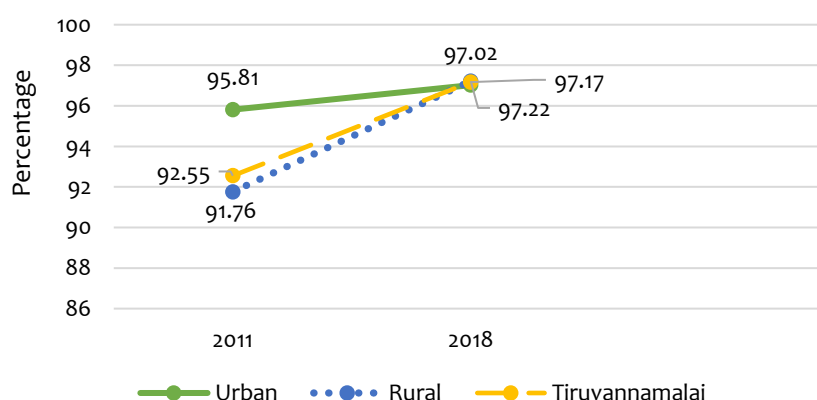


Chart 3.17 shows rapid electrification in rural areas of Tiruvannamalai district between 2011-2018. The rate of growth of households with electricity connection was higher in rural areas compared to the urban areas. The electrification status in the district at 97.17 percent was marginally lower than the state estimate of 97.6 percent. Tiruvannamalai was ranked twentieth among the then 32 districts in terms of electrification (TNHPS-PBS, 2021).

3.5.5 Primary Cooking Fuel

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

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

Chart 3.18 Comparison of Primary Cooking Fuel - Tiruvannamalai and Tamil Nadu

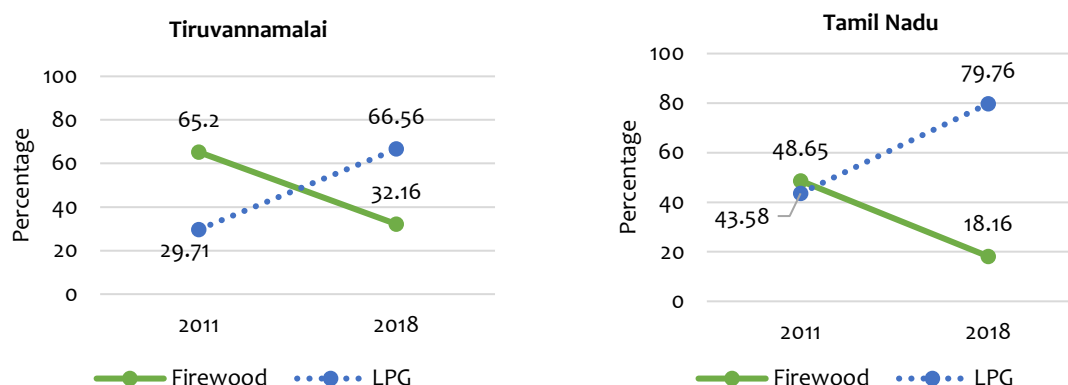


Chart 3.18 shows that, although the use of LPG as the primary cooking fuel had increased tremendously in the district from 2011 (Census, 2011) to 2018 encompassing around two-thirds of the households, firewood was still used by around one-third of the households. Compared to other districts of Tamil Nadu, Tiruvannamalai district was ranked twenty-seventh in terms of LPG use and ranked sixth in terms of firewood use as primary cooking fuel.

Chart 3.19 Comparison of Primary Cooking Fuel – Rural and Urban

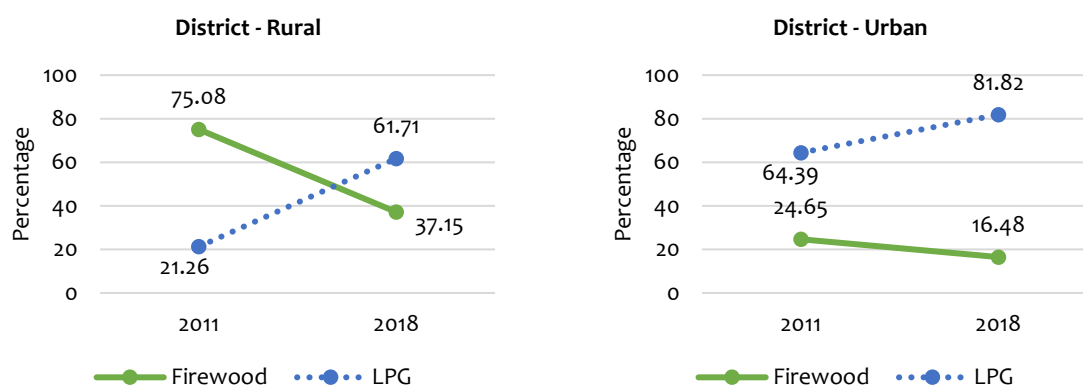


Chart 3.19 shows that the predominant cooking fuel in rural areas in the district had changed drastically from firewood to LPG in the period 2011-2018. LPG uptake had increased further in urban areas, and that of firewood had dropped to less than 20 percent during the same period.

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

Primary Cooking Fuel	Social Group					
	SC	ST	BC	MBC	General	Tiruvannamalai
Firewood	37.86	86.09	23.56	35.23	12.07	32.16
Kerosene	1.07	0.00	0.97	0.46	0.00	0.78
LPG	60.52	13.91	74.94	64.04	85.23	66.56
Others	0.48	0.00	0.45	0.13	2.70	0.38
DK/RF	0.08	0.00	0.08	0.14	0.00	0.10
Total	100	100	100	100	100	100

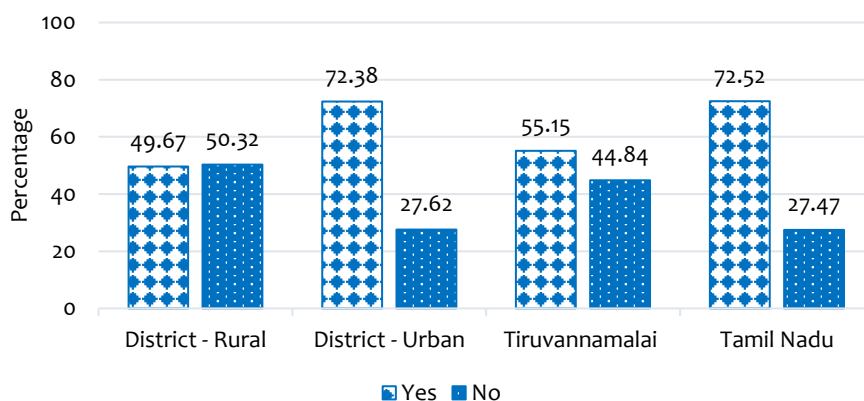
*Others Include Electricity, Gobar Gas, Solar Energy, etc.

Table 3.23 shows that, while around 85 percent of General category households used LPG as the primary cooking fuel, more than 85 percent of the ST households and more than one-third of the SC and MBC 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 – Area-wise Percentages



The percentage of households with latrine within the premises of the house had increased from 22.78 percent in 2011 (Census, 2011) to 55.15 percent in 2018 as per the PBS estimates. Tiruvannamalai district was positioned twenty-seventh in the state among the 32 districts in terms of this indicator (TNHPS-PBS, 2021). The percentage of households equipped with latrine facilities in the district was lesser than the state level estimate. It is pertinent to note that a little over half 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	General	Tiruvannamalai
Yes	37.54	40.18	71.23	53.37	85.50	55.15
No	62.46	59.82	28.77	46.60	14.50	44.84
Total	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 around 85.50 percent of the General category and around 71.23 percent of the BC category households had latrine access within the premises, around 60 percent of the SC and ST households did not have the same.

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

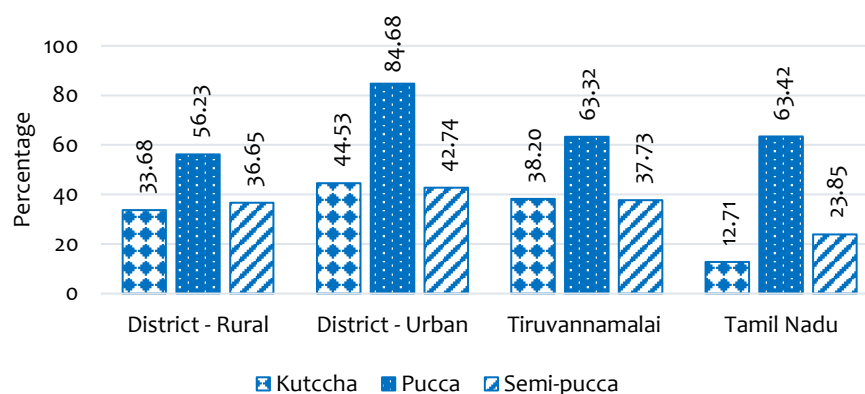


Chart 3.21 shows that the percentage of pucca houses with latrine facilities was higher than for semi-pucca and kutccha houses in the district. Except for the latrine facilities with pucca houses, the percentages of latrine facilities in kutccha and semi-pucca houses in the district were higher than their respective state estimates (TNHPS-PBS, 2021). A higher number of pucca and kutccha houses in urban areas in the district had latrine facilities than rural areas.

The percentage of total households in the district following open defecation had declined considerably from 75.82 percent in 2011 (Census, 2011) to 44.39 percent in 2018. The alternative practices of defecation followed by 44.84 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 Household without Latrine – Area-wise Percentages

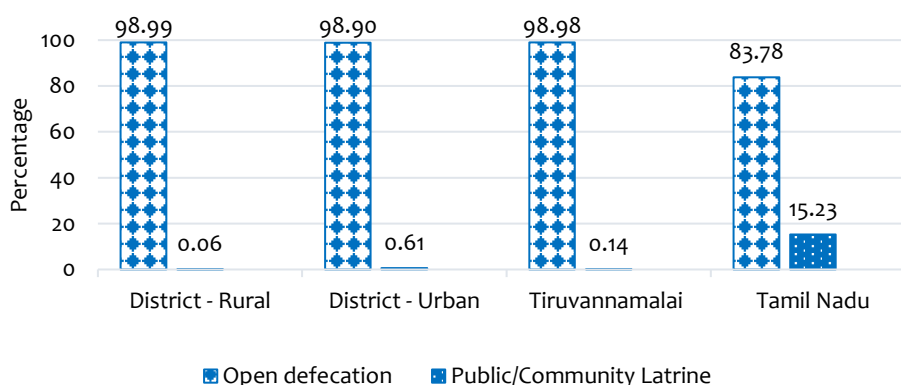


Chart 3.22 shows that 98.99 percent of households without latrine within the house premises in the district were following open defecation, which was significantly higher than the state level estimate. The practice of open defecation by these households was higher in both rural areas and urban areas of the district. As per the state PBS report, Tiruvannamalai district was ranked fifth in terms of the percentage of total households following open defecation.

4. Conclusions and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of Tiruvannamalai district was conducted from a sample of 6,529 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.

Tiruvannamalai district displays a significant progress in terms of employment, house ownership, household asset ownership, and agricultural land ownership. Among the erstwhile 32 districts, Tiruvannamalai was ranked sixth in terms of the percentage of employed population and ranked fourth in terms of female workforce participation. The district estimates on the percentages of the households owning agricultural land and the households living in their own houses were much higher than the state estimates. Although Tiruvannamalai district was ranked twentieth among the then 32 districts in terms of electrification, the difference in electrification between the district and the state estimate was negligible.

Tiruvannamalai requires government intervention for further improvement in literacy and household income. Tiruvannamalai was ranked twenty-eighth in terms of literacy rate followed by Ariyalur, Erode, Tiruppur and Dharmapuri districts. A wide gender gap in literacy rate (16.33 percent) prevailed in the district in 2018, which was higher than the state gender gap (10.82 percent). The mean annual household income of Tiruvannamalai district (₹84,309) was much lesser than the state estimate of ₹1,42,752. Among the then 32 districts, Tiruvannamalai was ranked thirty-first in terms of mean annual household income, followed just by Tiruvarur district. Higher employment level with low levels of literacy, and higher dependency on agriculture demonstrate the cause for lower level of household income as 54.58 percent of employed population depend on casual labour. While the “Free Bus Travel Scheme for Women” will have a significant positive impact on bridging the gender gap in literacy rate and on the female employment; which will subsequently reflect in increased household income, the impact of “Magalir Urimai Thogai scheme” on the female work participation rate must be examined.

Lower percentage of households using LPG as primary cooking fuel and lower percentage of households with latrine within house premises in the district are causes for concern. Compared to other districts of Tamil Nadu, Tiruvannamalai stands twenty-seventh in terms of both LPG use as primary cooking fuel and the households with latrine facilities. Consequently, more than one-third of rural households (37.15 percent) still used firewood as primary cooking fuel and 44.39 percent of the households in the district followed open defecation. The district was ranked fifth with respect to higher open defecation, just after

Ariyalur, Cuddalore, Viluppuram and Pudukkottai districts. Government intervention is required to ensure that all households are not only equipped with subsidised LPG connection but also ensure its sustained usage; which will reduce the firewood use. Policies should also focus on increasing the availability of latrine facilities at the household level to reduce open defecation.

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**A collaborative project between
Department of Economics and Statistics &
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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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