Department of Economics & Statistics

Madras Institute of Development Studies

Namakkal

TNHPS
Tamil Nadu Household Panel Survey

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

Namakkal District

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Summary of PBS Findings

Demographic Indicators

- Namakkal had a sample size of 5,935 households, of which 63.93 percent of households were from rural areas and 36.07 percent of households were from urban areas.

- The district had a huge demographic dividend with almost half the population—about 45.42 percent—aged between 17 and 45 years.

- The BC social group was the largest in the district, constituting around 48 percent of the total households in the district.

Education

- The literacy rate in the district had increased from 74.63 percent (Census (2011)) to 80.34 percent in 2018. Namakkal was ranked twenty-fourth among the then 32 districts in terms of this indicator.

- Though both rural and urban literacy rates registered an increase, the rural literacy rate was 7.98 percent lesser than the urban literacy rate in 2018. The gender gap in literacy rate was wider in rural areas at 15.55 percent than in urban areas at 11.34 percent.

- While more than 80 percent of the General and BC category population in the district had received formal education, less than two-thirds of the ST population had done so.

Employment

- The percentage of employed population in the district at 54.37 percent was higher than the state estimate of 50.10 percent, while the share of unemployed population at 2.93 percent was lower than the state estimate of 3.50 percent. The rest were not in the labour force at 42.67 percent.

- Namakkal district was ranked fifth among the then 32 districts in Tamil Nadu in terms of employed population.

- The percentage of population that was employed was higher in rural parts of the district than the urban.

- While 72.69 percent of the male population aged 14 and above was employed, the female work participation in the district was 37.61 percent.

- Around 60.41 percent of the female population aged 14 and above were not in the labour force, and among these, majority of them—about 70.77 percent—were associated with attending to domestic duties as a homemaker.

- The employed population in Namakkal district depended on both the agricultural and industrial sectors for employment. While casual labour in industry was predominant in urban areas, casual labour in agriculture was most common in rural areas of the district.

- The majority of the SC population were employed as casual labourers in industry and agriculture. More than half of the ST population in the district was self-employed in agriculture. Unlike the state level trend, where the majority of the General category population were employed as salaried workers in the private sector, in Namakkal district, they were predominantly employed in agriculture.

Land Ownership and Assets

- Namakkal district was ranked tenth in the state in terms of agricultural land ownership. A higher percentage of ST and General category households owned agricultural land in the district compared to other social groups.

- Almost half the households—about 48.08 percent—that owned agricultural land in the district depended on rain-fed irrigation alone.

- Around 83.4 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares.

- Ownership of at least one agricultural, allied agricultural or fishing asset in the district was higher at 24.20 percent compared to the state estimate of 20.92 percent.

- While around 88 percent of MBC and BC households owned at least one household asset, around 15 percent of SC and 18 percent of ST households did not own any household asset, including a mobile phone.

- The percentage of households possessing priority ration cards in the district at 52.99 percent was much lesser compared to the state level estimate of 71.14 percent. Interestingly, a higher percentage of urban households possessed priority ration cards than rural households.

Household Income

- The mean annual household income of Namakkal district was 19.38 percent lesser (₹1,15,084) than the state PBS estimate (₹1,42,752); in the urban areas it was

₹1,55,700 and in rural areas it was ₹90,312. The district was ranked fifteenth out of 32 districts with respect to this parameter.

- The mean income from salaried work (₹1,88,359) was the highest, while that from wage labour was the lowest (₹40,269).

- The Gini coefficient measuring income inequality across households in the district (0.538) was lower than the state PBS estimate (0.563).

Housing

- Around 73 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. While most of the households in rural areas lived in their own house, a large proportion of urban households were relying on rented houses for their stay.

- Out of the households that lived in an own house in the district, 14.99 percent of houses were built under a government scheme. ST and SC households had the highest percentage of houses built under a government scheme in the district compared to other social groups.

- Around 58 percent of the households in the district were living in pucca houses, which was lower than the state level estimate of 63.42 percent.

Drinking Water, Electricity and Cooking Fuel

- The primary source of drinking water of households in Namakkal district was public tap or standpipe at 39.99 percent.

- The district witnessed increase in electrification in both rural and urban areas between 2011-2018.

- The use of LPG as the primary cooking fuel in the district had increased tremendously from 55.53 percent in 2011 to 88.14 percent in 2018. The district was ranked seventh in terms of LPG use among all districts.

- While majority of the BC, MBC and SC households used LPG as the primary cooking fuel, more than 40 percent of the ST households still used firewood as the primary cooking fuel.

Sanitation

- The percentage of households with latrine within house premises had increased from 40.69 percent in 2011 (Census, 2011) to 73.66 percent in 2018. A greater proportion of urban households did not have a latrine within the house premises compared to rural households, contrary to the usual trend.

- Around 43 percent of SC households and more than a quarter of ST households did not have a latrine within the house premises.

- The percentage of total households in the district following open defecation declined from 43.85 percent in 2011 (Census, 2011) to 14.91 percent in 2018.

1. Introduction

1.1 Profile of Namakkal District

Namakkal district in Tamil Nadu was formed in the year 1997 from the bifurcation of Salem district. It is in the Western region of the state, with Salem district in the north, Tiruchirappalli in the east, Karur in the south, and Erode in the west.

According to Census (2011), Namakkal had a total population of 17.27 lakhs, accounting for approximately 2.34 percent of Tamil Nadu's population, which was 7.21 crores. The district comprised 4.76 lakh households, with 59.68 percent residing in rural areas and 40.32 percent residing in urban areas. The male population was 50.35 percent, and the female population was 49.65 percent. Namakkal demonstrated a child-sex ratio of 913.54, which is lower than the state average of 943.27. Within the social groups, 20 percent of the population belonged to the Scheduled Castes, while 3.3 percent belonged to the Scheduled Tribes. The literacy rate in Namakkal district stood at 74.63 percent, which is lower compared to the state's average of 80.09 percent. The male literacy rate was reported to be 82.64 percent, while the female literacy rate was reported to be 66.57 percent. These figures indicate that there is potential to improve education, especially among females.

In the fiscal year 2018-19, Namakkal's Net District Domestic Product was ₹ 51,55,358 lakhs, ranking at twelfth among all districts. However, the district's per capita Net District Domestic Product was recorded at ₹ 2,69,754, ranking it fourth among districts and surpassing Tamil Nadu's average of ₹1,83,884 (Department of Economics and Statistics, 2023). In terms of sectoral distribution, the tertiary (service) sector contributes approximately 53 percent of the domestic income while the primary and secondary sectors contribute around 18 percent and 29 percent respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu State Planning Commission (2017), Namakkal holds the twelfth position in the Human Development Index, signifying a relatively favourable level of well-being and development in the district. Additionally, it ranked fourth in the Gender Inequality Index with a score of 0.054, highlighting relatively lower levels of gender disparity in the district. In terms of the Child Development Index, the district ranked seventh with a score of 0.699, indicating that that district performs relatively better in facilitating health, nutrition, and education of children. However, Namakkal ranked twenty-fifth in terms of the Multidimensional Poverty Index with a score of 0.6, indicating that a significant portion of the district's population face multiple deprivations in various aspects of life and there is a need for comprehensive interventions to address poverty and improve well-being.

Overall, Namakkal is one of the developed districts of Tamil Nadu characterized by its high domestic product and high ranking in most of the indicators of development. Nevertheless, there exists a requirement for the district to confront issues related to multidimensional poverty.

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 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 Namakkal district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Namakkal (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Namakkal district. The sample size for the district was 5,935 households, among which 3,794 households were from rural areas and 2,141 households were from urban areas. The blocks covered during the survey were: Elachipalayam, Erumaipatti, Kabilarmalai, Kolli Hills, Mallasamudram, Mohanur, Namakkal, Pallipalayam, Paramathi, Puduchatram, Rasipuram and Vennanthur.

2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 6,575 households were selected in Namakkal district using a multi-stage stratified sampling design[1]. The final sample size for PBS was 5,935 households, of which 63.93 percent of households were from rural areas and 36.07 percent of households were from urban areas of the district. 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		Namakkal	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	3,794	89.76	2,141	91.18	5,935	90.27
Non-Response	220	5.20	117	4.98	337	5.13
Non-sample	213	5.04	90	3.83	303	4.61
Total	**4,227**	**100**	**2,348**	**100**	**6,575**	**100**

Namakkal district had a lower response rate (willingness of households to participate in the TNHPS-PBS) of 90.27 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 5.13 percent of households were not willing to participate in the survey. About 4.61 percent of the selected samples were removed as they were not considered as households as per the definition used in the PBS[2].

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[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 size[3] in the district had reduced from 3.64 in 2011 (Census, 2011) to 3.21 in 2018. As per the PBS estimates, 51.67 percent of the population in the district were female, and 48.30 percent of the population were male. Around 18.83 percent of the households in the district were headed by females, which was similar to the state estimate of 18.93 percent (TNHPS-PBS, 2021).

Chart 3.1 Age-wise Distribution of Population – Area-wise Percentages

As per the PBS estimates, around 32 percent of the population in the district were in the age group of 26 to 45 years. The age category between age 17 to 60 years—in the district
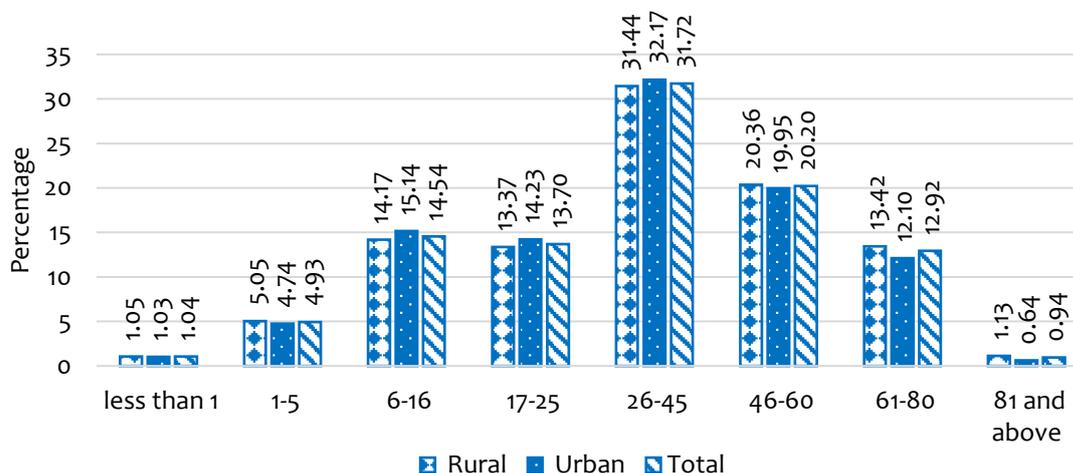
was 65.62 percent, which was similar to the state estimate of 66.00 percent. The proportion of senior citizens (above 60 years) in Namakkal district's population at 13.86 percent was higher than that at the state level of 11 percent (TNHPS-PBS, 2021).

The percentage of currently married population in the district was 71.18 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.

The religion-wise distribution of the households in the district as per the PBS estimates shows that 97.21 percent of the households practiced Hinduism, 2.14 percent practiced Islam and 0.59 percent followed Christianity.

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

Table 3.1 Social Group-wise Distribution of Households

Social Group	Percentage
SC	22.38
ST	4.14
BC	48.04
MBC	19.27
Denotified Communities (DNC)	0.02
General	5.78
DK/RF	0.37
Total	**100**

As per the PBS estimates, the highest percentage of households in Namakkal district belonged to the BC category. The percentages of SC and ST households in the district were 22.38 percent and 4.14 percent in 2018.

It is important to note that the percentage of DNC category households in Namakkal district was only 0.02 percent and only one DNC household was sampled in the district. Hence, the results discussed in this report pertaining to this social group 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 Namakkal district.

3.2.1 Education

The change in literacy rate of Namakkal district and 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 as 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) – Area-wise Percentages

Gender	District - Rural		District - Urban		Namakkal		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	80.21	85.39	86.28	91.15	82.64	87.61	86.77	90.97
Female	62.36	69.84	72.77	79.81	66.57	73.66	73.40	80.15
Total	**71.34**	**77.28**	**79.51**	**85.26**	**74.63**	**80.34**	**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 Namakkal district at 74.63 percent was lesser than the state estimate of 80.09 percent. The PBS estimates showed that in the year 2018, the

literacy rate in the district had increased to 80.34 percent, which continued to be less than the state estimate of 85.40 percent. Nevertheless, the district had registered a 5.71 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 state estimate and Namakkal district was 5.46 percent in 2011, which had reduced to 5.06 percent in 2018 as per the PBS estimates. As per the state PBS estimates, the district was ranked twenty-fourth in terms of literacy rate among the then 32 districts in 2018 (TNHPS-PBS, 2021).

Both male literacy and female literacy rates in Namakkal 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 16.07 percent in 2011 to 13.95 percent in 2018 but 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 7.98 percent lower than the urban literacy rate in 2018. The gender gap in literacy rate was higher in rural areas at 15.55 percent than in urban areas at 11.34 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 Namakkal district. The area wise education status of the population in the district is given below.

Chart 3.2 Formal Schooling of the Population – Area-wise Percentages
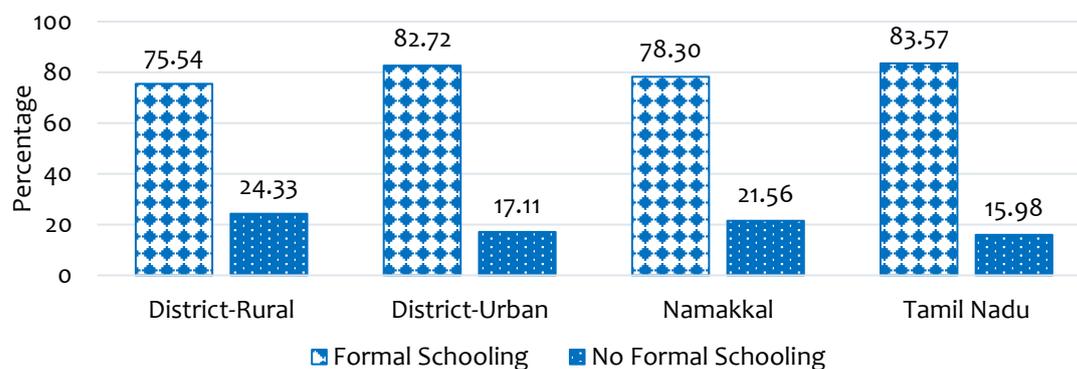
*Others and Don't Know/Refuse to Answer categories are not included in any chart, unless their value is substantially high. Therefore, the total might not add up to 100 percent.

Chart 3.2 shows that more than three quarters of the specified population in Namakkal district had attended formal schooling, which was lower compared to the state estimate of 83.57 percent (TNHPS-PBS, 2021). 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 Percentages

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

Education Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Formal Schooling	74.96	63.69	82.47	73.62	100.00	83.94	78.30
No Formal Schooling	24.90	36.13	17.38	26.25	0.00	15.98	21.56
Others and DK/RF	0.14	0.19	0.16	0.13	0.00	0.08	0.15
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**
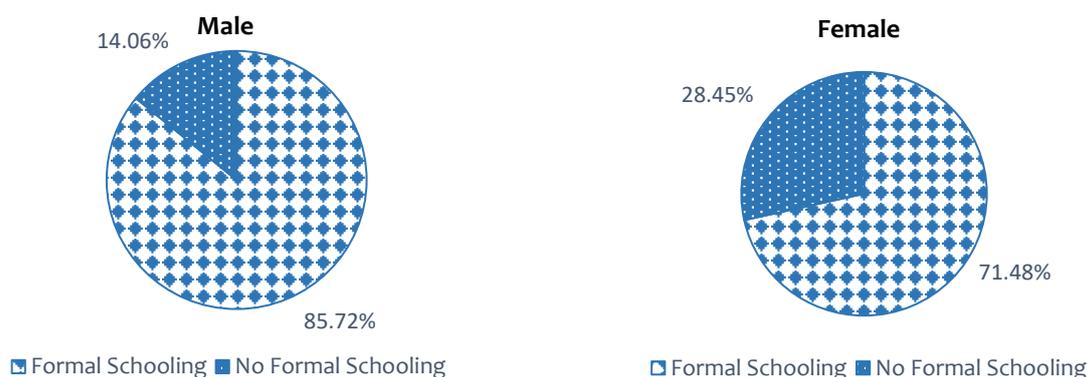
Chart 3.3 shows that the percentage of the population that had acquired formal education in the district was much higher among males compared to females, again denoting a wide gender gap, like in literacy.

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

Table 3.3 shows a wide variation across social groups in attainment of formal schooling. While more than 80 percent of the specified General and BC category population in the district had received formal education, less than two-thirds of the ST population had done so. All the three individuals in the single DNC household surveyed in the district had received formal schooling.

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 Qualification	Area Type		
	Rural	Urban	Namakkal
Primary (I to V)	24.26	22.06	23.37
Middle School (VI to VIII)	20.97	19.84	20.51
High School (IX to X)	21.99	19.95	21.16
Higher Secondary (XI to XII)	16.22	14.77	15.63
Bachelor's degree	10.39	12.69	11.33
Diploma Degree	2.65	4.35	3.34
Post Graduate Degree	3.34	6.11	4.46
Other Higher Education	0.00	0.03	0.01
Others/DK/RF	0.17	0.20	0.18
Total	**100**	**100**	**100**

Around 80.67 percent of the district's population with formal education—had completed schooling up to higher secondary level. The percentage of population that had completed tertiary education—such as bachelor's degree, diploma or post graduate degree and above—was 19.14 percent, which was lower than the state estimate of 20.02 percent. Also, this figure was higher for urban areas of the district at 23.18 percent than rural areas at 16.38 percent.

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

Educational Qualification	Gender		
	Male	Female	Namakkal
Primary (I to V)	21.51	25.39	23.37
Middle School (VI to VIII)	20.59	20.44	20.51
High School (IX to X)	21.50	20.80	21.16
Higher Secondary (XI to XII)	14.40	17.00	15.63
Bachelor's degree	12.32	10.23	11.33
Diploma Degree	4.90	1.61	3.34
Post Graduate Degree	4.50	4.42	4.46
Other Higher Education	0.02	0.00	0.01
Others/DK/RF	0.25	0.11	0.18
Total	**100**	**100**	**100**

Table 3.5 shows that a higher percentage of females at 83.63 percent in the specified population had completed schooling up to higher secondary level compared to males at 78.00 percent. A higher percentage of males at 21.74 percent had completed tertiary education compared to females at 16.26 percent in the district.

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

Educational Qualification	Social Group						Namakkal
	SC	ST	BC	MBC	DNC	General	
Primary (I to V)	20.68	34.51	23.47	24.80	0.00	21.96	23.37
Middle School (VI to VIII)	22.41	19.74	19.45	20.40	0.00	22.60	20.51
High School (IX to X)	21.23	23.91	20.16	21.39	0.00	27.13	21.16
Higher Secondary (XI to XII)	16.89	12.06	15.58	14.67	0.00	16.84	15.63
Bachelor's degree	12.07	6.70	11.83	10.88	33.33	8.36	11.33
Diploma Degree	3.33	0.46	3.80	3.05	0.00	1.85	3.34
Post Graduate Degree	3.20	2.33	5.49	4.63	66.67	1.16	4.46
Other Higher Education	0.00	0.00	0.02	0.01	0.00	0.00	0.01
Others/DK/RF	0.18	0.29	0.19	0.18	0.00	0.09	0.18
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

The social group-wise analysis in Table 3.6 shows that more than 90 percent of the ST population in the district had completed only primary and secondary school as their highest attained level of education. The percentage of population that had completed tertiary education—bachelor's degree and above—was also the lowest among the ST population at 9.49 percent. There were only three DNC respondents in the specified population surveyed in the district and hence their results must be interpreted accordingly, as discussed in Section 3.1.

About 21.56 percent of the population had not received formal education in Namakkal 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		Namakkal
	Rural	Urban	
Yes	7.13	14.86	9.48
No	92.84	85.01	90.46
DK/RF	0.03	0.14	0.06
Total	**100**	**100**	**100**

Table 3.7 shows the literacy status of the population with no formal schooling in the district. Only 9.48 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	General	Namakkal
Yes	8.12	7.09	13.45	5.97	6.49	9.48
No	91.88	92.75	86.44	93.98	93.51	90.46
DK/RF	0.00	0.16	0.11	0.04	0.00	0.06
Total	**100**	**100**	**100**	**100**	**100**	**100**

* Since there were no DNC respondents without formal schooling, this social group is not captured in the table.

Table 3.8 shows the literacy status of the population with no formal schooling, across various social groups. Functional literacy was low across 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 rate 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 force[4].

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

- People who are self-employed in agriculture,

- People who are self-employed in allied agricultural activities,

- People who are self-employed in non-agricultural activities,

- People who worked as casual labourers in agriculture,

- People who worked as casual labourers in industry,

- People who worked as casual labourers in the service sector,

- People who worked as casual labourers in other domains,

- People who worked as salaried employees in the government sector,

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[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

- People who worked as salaried employees in the private sector,

- People who are involved in multiple occupations, and

- 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:

- People who attended educational institutions,

- People who attended domestic duties only,

- Rentiers, pensioners, remittance recipients, etc.,

- People who are not able to work due to disability and

- Others (including begging, etc.).

Chart 3.4 Employment Status of Population (Age 14 years and above) – Area-wise Percentages
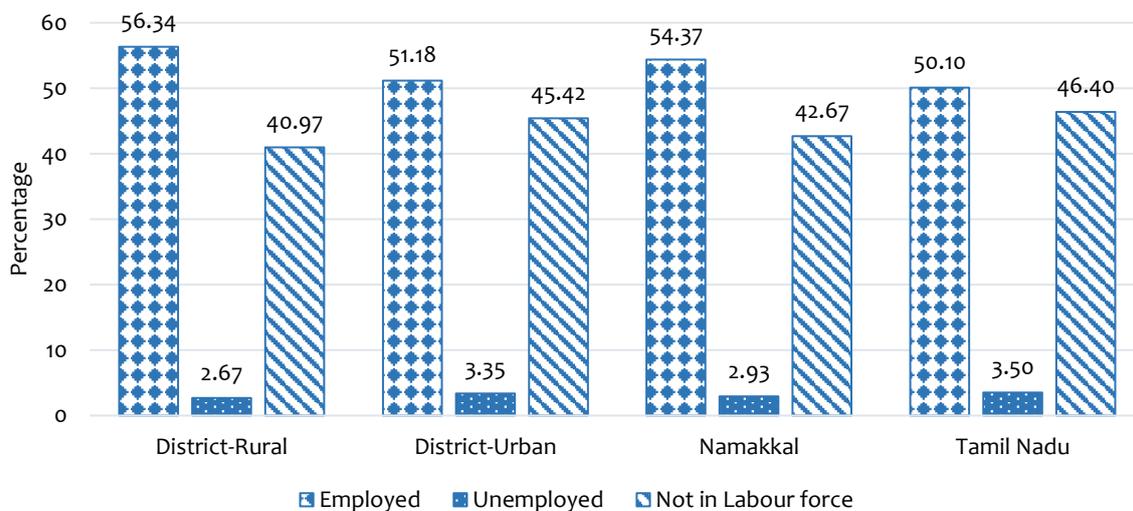
Chart 3.4 shows that the overall percentage of employed population—14 years and above—in the district was higher than the state estimate. Also, the share of unemployed population was lower in the district compared to the state. The percentage of population that was employed was higher in rural parts of the district than the urban. The unemployment status in rural areas of the district at 2.67 percent was lower than the state's rural estimate of 3.60 percent, while the district urban unemployment status at 3.35 percent was similar to the state's urban estimate of 3.30 percent. Namakkal district was ranked fifth among all districts in Tamil Nadu in terms of employed population and ranked twenty-third in terms of the unemployed population.

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

Male

23.31%

3.97%

72.69%

☐ Employed ■ Unemployed ◪ Not in Labour Force

Female

37.61%

60.41%

1.96%

◪ Employed ■ Unemployed ◪ Not in Labour Force

Chart 3.5 shows the gender-wise employment status of the population aged 14 years and above. While almost three quarters of the male population was employed, the female work participation was lower at 37.61 percent. Decreased female labour force participation has been well documented at the national level (Das et al., 2015; Desai, 2017; Desai & Joshi, 2019). It is to be noted that the district female work participation was significantly higher than the state estimate of 29.96 percent in 2018 (TNHPS-PBS, 2021) and the national average of 23.3 percent in 2017-18 (National Statistical Office, 2019). Around 60 percent of the female population was not in the workforce, and among these, majority of them at 70.77 percent were associated with attending to domestic duties as homemakers (see Chart 3.7).

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

Work Type	Area Type		
	Rural	Urban	Namakkal
Self Employed Agriculture	15.17	3.64	11.04
Self Employed Non-Agriculture	9.88	22.25	14.32
Self Employed Allied Agriculture	2.10	0.88	1.66
Casual Labourer Agriculture	22.59	3.80	15.85
Casual Labourer Industry	12.28	32.05	19.37
Casual Labourer Service	9.08	8.13	8.74
Casual Labourer (Others)	8.71	2.06	6.33
Salaried Worker Government	4.29	7.06	5.28
Salaried Worker Private	13.93	19.07	15.77
Multiple Occupation	1.73	0.73	1.37
Others	0.18	0.22	0.19
DK/RF	0.06	0.10	0.08
Total	**100**	**100**	**100**

As per the PBS estimates, the employed population in Namakkal district depended on both the agricultural and industrial sectors for employment. While casual labour in industry was predominant in urban areas, casual labour in agriculture was most common in rural areas of the district. While the greatest proportion of the working population in the state were salaried workers in the private sector at 21.82 percent (TNHPS-PBS, 2021), majority of the working population in Namakkal district were casual labourers in the industrial sector.

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

Work Type	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Self Employed Agriculture	3.21	50.28	10.75	8.10	0.00	22.40	11.04
Self Employed Non-Agriculture	7.55	4.27	19.86	13.98	0.00	8.96	14.32
Self Employed Allied Agriculture	1.44	0.40	1.88	1.93	0.00	1.12	1.66
Casual Labourer Agriculture	21.80	29.55	10.56	12.56	0.00	33.77	15.85
Casual Labourer Industry	22.72	0.59	22.19	17.86	0.00	3.75	19.37
Casual Labourer Service	9.66	0.00	7.00	14.54	50.00	6.04	8.74
Casual Labourer (Others)	11.47	0.00	2.40	11.98	0.00	0.00	6.33
Salaried Worker Government	5.41	3.29	6.55	3.52	0.00	2.64	5.28
Salaried Worker Private	16.16	2.64	17.48	13.82	50.00	19.86	15.77
Multiple Occupation	0.48	8.58	0.94	1.50	0.00	1.45	1.37
Other	0.02	0.00	0.32	0.20	0.00	0.00	0.19
DK/RF	0.08	0.40	0.08	0.00	0.00	0.00	0.08
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

More than half of the ST population in the district was self-employed in the agricultural sector. Majority of the SC population were employed as casual labourers in industry and agriculture, while at the state level, they were primarily employed in agriculture. The percentages of ST population at 29.55 percent and SC population at 21.80 percent engaged as casual labour in agriculture were lesser compared to their respective state estimates of 41.32 percent and 33.33 percent (TNHPS-PBS, 2021). It is important to note that unlike the state level trend, where majority of the General category population at 47.52 percent were employed as salaried workers in the private sector (TNHPS-PBS, 2021), in Namakkal district, they were predominantly employed in agriculture. There were only two DNC respondents in the specified population surveyed in the district and hence their results must be interpreted accordingly, as discussed in Section 3.1.

Chart 3.6 Composition of Population Not in the Labour Force – Area-wise Percentages
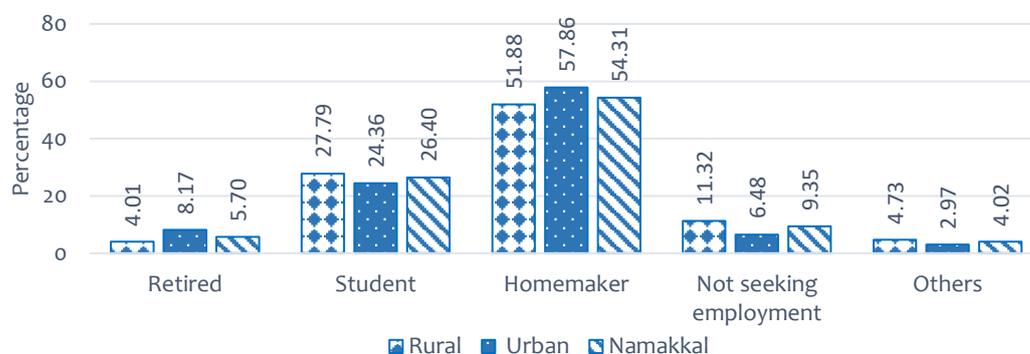
Chart 3.6 shows that, similar to the trend at the state level, more than half the population that was not in the labour force in the district comprised homemakers involved in unpaid domestic duties of the household, followed by students. The proportions of the

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 the Population Not in the Labour Force (Age 14 years and above) – Gender-wise Percentages
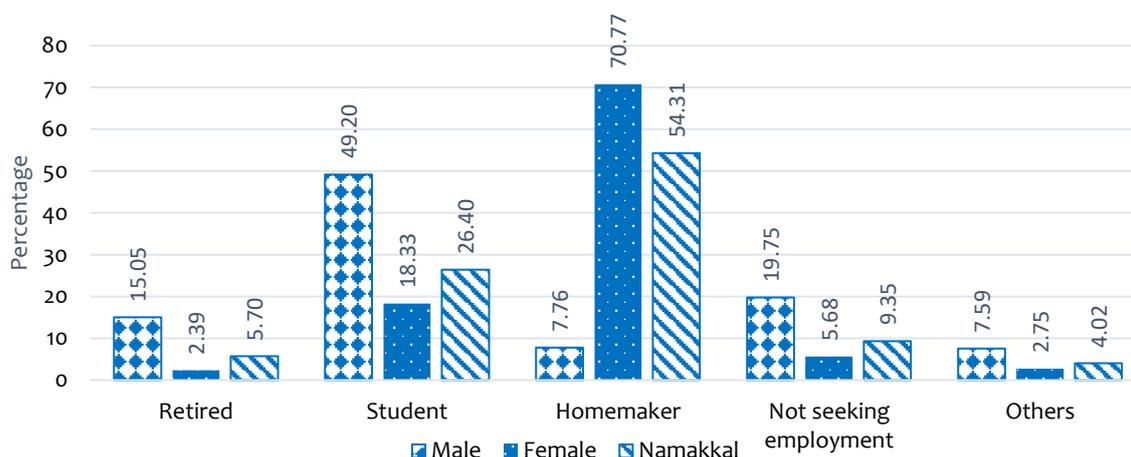
The gender-wise distribution of the population currently not in the labour force is given in Chart 3.7. While Chart 3.3 represents the lower female involvement in formal education, Chart 3.7 shows the staggeringly lower female involvement in higher education compared to men as only 18.33 percent of the 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 Population Not in the Labour Force - Social Group-wise Percentages

Current Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Retired	4.94	3.49	7.01	4.60	0.00	1.85	5.70
Student	32.25	37.71	22.22	30.15	0.00	25.22	26.40
Homemaker	49.10	43.06	57.47	52.60	100.00	55.14	54.31
Not seeking employment	9.33	5.87	9.44	7.12	0.00	16.38	9.35
Others	4.28	4.97	3.68	5.53	0.00	1.42	4.02
DK/RF	0.09	4.91	0.19	0.00	0.00	0.00	0.23
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 ST category had a higher

percentage of not-working population as students compared to the other social groups. The sole DNC respondent in the specified population surveyed in the district was a homemaker.

3.3 Socio-Economic Indicators

The PBS estimates for various socio-economic indicators of Namakkal district such as ownership of agricultural land, household assets and income are discussed 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 Namakkal 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
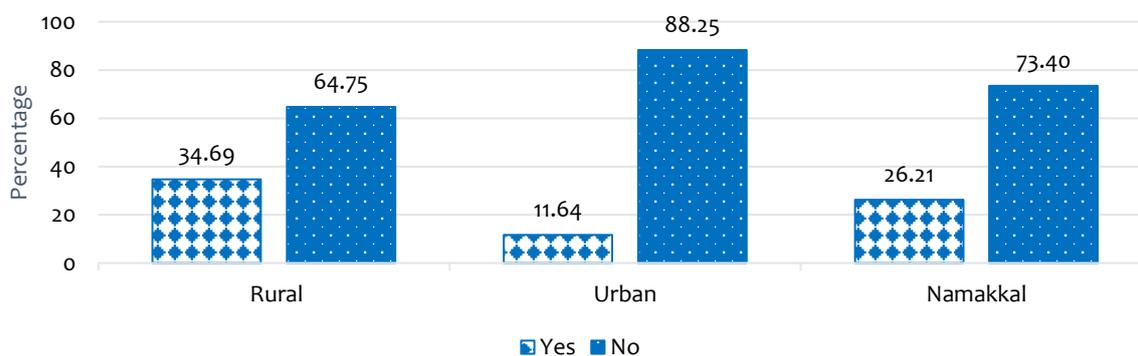
Namakkal is a largely rural district. The percentage of households owning agricultural land in the district—about 26.21 percent—was higher than that at the state level estimate of 19.41 percent. The district was ranked tenth in the state in terms of agricultural land ownership. Area-wise comparison shows 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 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	Namakkal
Only Irrigated Agriculture Land	34.34	42.84	35.73
Only Unirrigated Agriculture Land	50.39	36.22	48.08
Both Irrigated and Unirrigated Agriculture Land	14.54	18.97	15.26
DK/RF	0.73	1.97	0.93
Total	**100**	**100**	**100**

Table 3.12 shows that, as per the PBS estimates, almost half the households that owned agricultural land in Namakkal 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. Canal, tank, tube well, lift irrigation and open well are the main sources of irrigation in the district (Department of Economics and Statistics, 2017).

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

Agricultural Land Ownership	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Yes	13.12	78.80	25.95	22.36	0.00	55.28	26.21
No	86.62	18.16	73.65	77.57	100.00	44.67	73.40
DK/RF	0.25	3.04	0.40	0.07	0.00	0.05	0.40
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

An analysis of the social group-wise ownership of agricultural land by households in Table 3.13 showed that a relatively higher percentage of the ST and General category households owned agricultural land in the district compared to other social groups. It is to be noted that around 97.48 percent of ST households and 90.11 percent of the General category households surveyed in the district were from rural areas. While a significant number of BC and MBC households also owned agricultural land in the district, only around 13 percent of SC households did so. The results for the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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**	**Namakkal**
Marginal (0.01 - 0.99)	59.68	54.48	58.84
Small (1 - 1.99)	23.85	28.23	24.56
Semi Medium (2 - 3.99)	13.14	13.12	13.14
Medium (4 - 9.99)	3.23	4.10	3.37
Large (10 and above)	0.10	0.07	0.09
Total	**100**	**100**	**100**

Table 3.14 shows that 83.4 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares. This figure is lesser than the state estimate of 89.33 percent.

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 tractors, pump sets, dairy animals, poultry birds, mechanised and non-mechanised boats, among the households of Namakkal district.

Chart 3.9 Ownership of Agricultural, Allied Agricultural and Fishing Assets – Area-wise Percentages
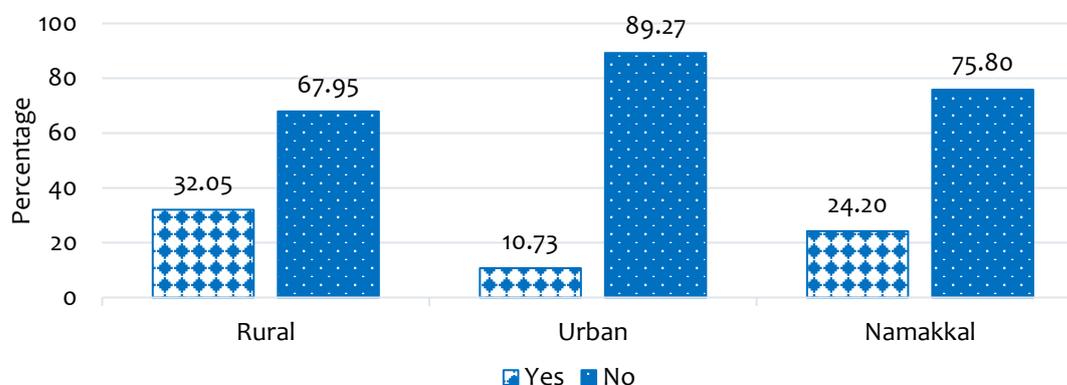
Chart 3.9 shows that 24.20 percent of the households in Namakkal district owned at least one agricultural, allied agricultural or fishing asset. This estimate was higher than the state estimate of 20.92 percent (TNHPS-PBS, 2021). The ownership of such assets was higher in rural areas than urban areas. The ownership pattern was higher in urban areas of the district compared to the state urban estimates of 7.67 percent (TNHPS-PBS, 2021).

3.3.3 Presence of Household Assets

Chart 3.10 shows the percentage of households in Namakkal 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 found in the urban areas.

Chart 3.10 Ownership of at least one Household Asset – Area-wise Percentages
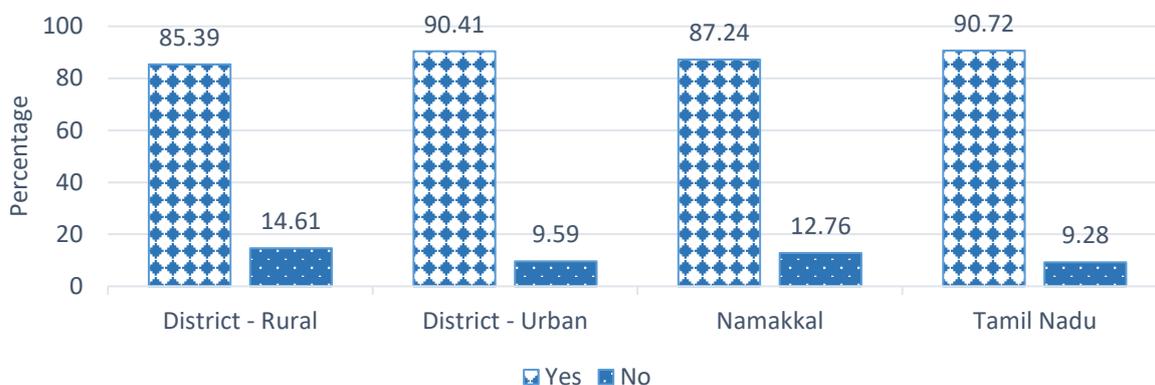
The percentage of households owning at least one household asset in Namakkal district was lower than the state estimate at 90.72 percent. Within the district, the urban areas had a higher percentage of households owning at least one household asset compared to the rural areas.

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

Presence of at least one Household Asset	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Yes	84.91	82.34	88.28	88.43	100.00	86.67	87.24
No	15.09	17.66	11.72	11.57	0.00	13.33	12.76
Total	100	100	100	100	100	100	100

The PBS estimates showed that more than 80 percent of households across all social groups owned at least one household asset. The percentage of General category households owning at least one household asset was lesser than the BC and MBC households, in contrast to other districts' estimates. Around 15 percent of SC and 18 percent of ST households did not even own a mobile phone. The results for the DNC 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 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 Namakkal district are given in Chart 3.11.

Chart 3.11 Possession of Ration Card – Area-wise Percentages
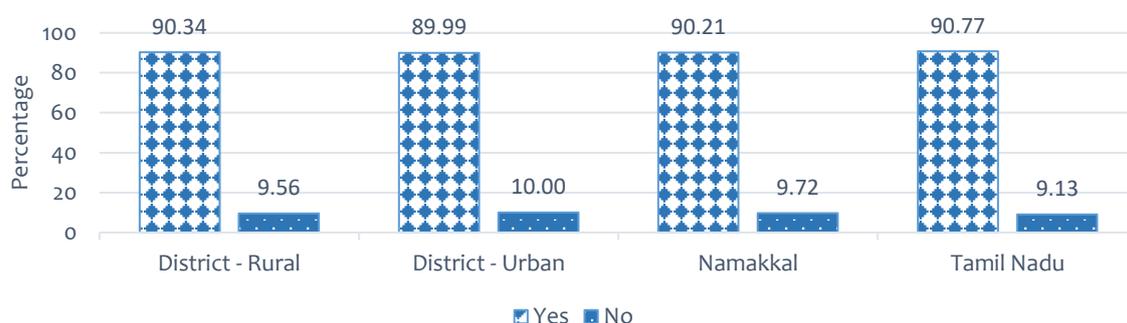
Chart 3.11 shows that the percentage of households that possessed a ration card in the district was similar to the state estimate. Both urban and rural households indicated a high level of possession of ration cards.

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	Namakkal
Yes	89.40	96.01	91.35	86.51	0.00	93.96	90.21
No	10.55	3.82	8.63	13.30	100.00	6.04	9.72
DK/RF	0.05	0.17	0.02	0.19	0.00	0.00	0.07
Total	**100**	**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. Possession of ration card was highest among the ST households in the district compared to other social groups. A higher percentage of ST and General category households in the district possessed ration cards compared to the state PBS estimates of 86.17 percent and 85.21 percent respectively, whereas lesser percentage of MBC households possessed ration cards compared to the state MBC estimate of 90.90 percent (TNHPS-PBS, 2021). The results for the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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 Namakkal district are given in Chart 3.12.

Chart 3.12 Type of Ration Card at the Household Level – Area-wise Percentages
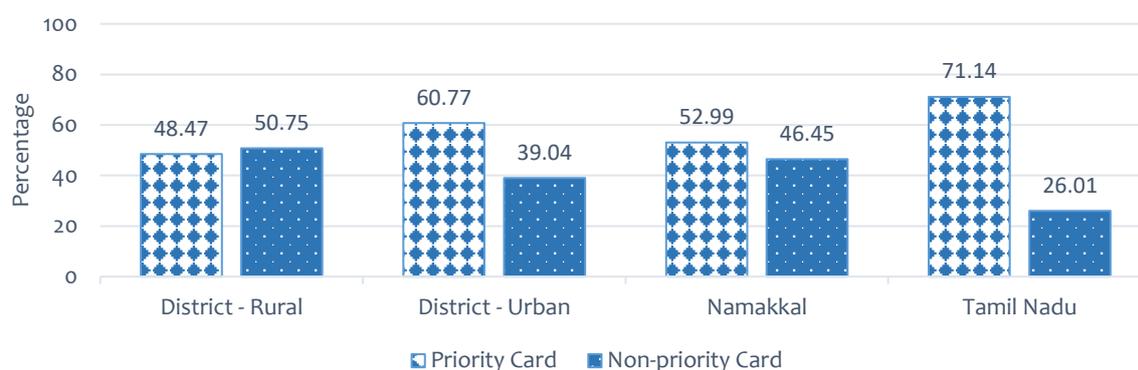
The percentage of households possessing priority ration cards in the district was much lesser compared to the state level estimate. Interestingly, a higher percentage of urban households possessed priority ration cards than rural households.

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 Namakkal district from various sources in the financial year 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 depend on various sources of income in Namakkal district.

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

Source	Rural	Urban	Namakkal	Tamil Nadu
Agriculture	56,970	1,17,082	66,377	61,830
Allied Agriculture	41,876	60,909	45,014	38,576
Salaried	1,52,287	2,35,429	1,88,359	2,29,857
Self Employed	1,05,777	1,44,688	1,27,753	1,47,403
Wage Labour	33,409	53,776	40,269	47,734
Other Sources	66,006	1,00,568	80,278	97,646
Income from all Sources	**90,312**	**1,55,700**	**1,15,084**	**1,42,752**

The mean annual household income of Namakkal district was 19.38 percent lesser than the state estimate (₹1,42,752). The mean household income was higher among the households with salaried income and lower among the households that depended on wage labour. Among the then 32 districts, Namakkal was ranked fifteenth in terms of mean annual household income (TNHPS-PBS, 2021).

In rural areas of Namakkal district, the mean household income was ₹90,312, which was lower than the state rural estimate of ₹92,765 (TNHPS-PBS, 2021). The mean household income was higher among the households who depended on salaried income. Lower mean income was reported among the households that engaged in wage labour.

In urban areas of the district, the mean household income was ₹1,55,700, which was lower than the state urban estimate of ₹1,99,629. The mean household income was higher among the households who depended on salaried income. Lower mean income was reported among the households that engaged in wage labour and in allied agricultural activities.

3.4.2 Income Inequality in Namakkal 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 Namakkal district (0.538) was lower than the state estimate (0.563)[5]. Income inequality across households in rural and urban areas of Namakkal district were almost similar.

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[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).

Table 3.18 Gini Coefficient of Income Inequality- Area-wise

Area Type	Gini coefficient
Rural	0.522
Urban	0.525
Namakkal	0.538
Tamil Nadu	**0.563**

Chart 3.13 Lorenz Curve and Income Inequality
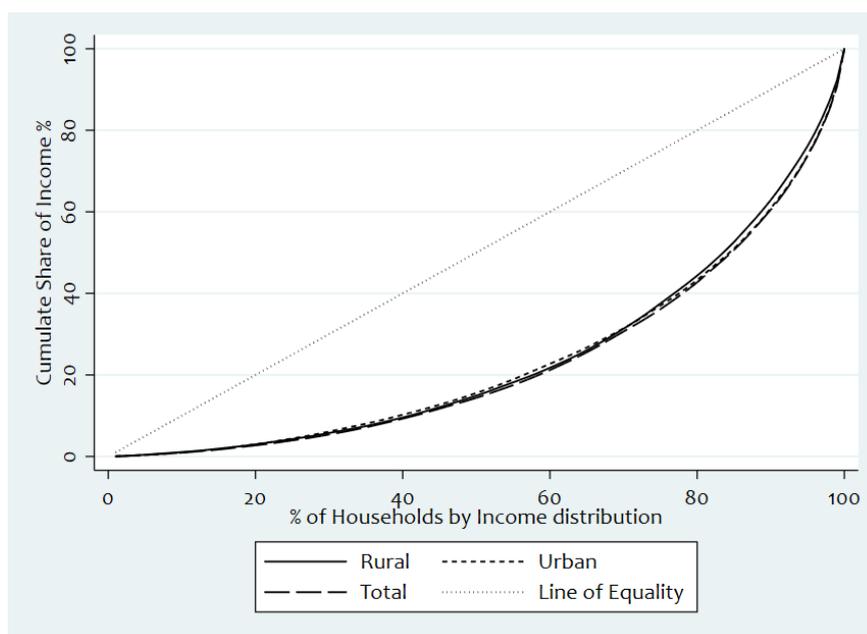
The Lorenz curve is a graphical representation of inequality in the distribution of income or wealth of households. Chart 3.13 shows that the bottom 60 percent of the households held around 20 percent of the total income; the bottom 80 percent of households held around 40 percent of the total income 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 similar in both rural and urban 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 variables can capture the level of optimism—or pessimism—that each household has about their future economic status.

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

Expectation of Future Income	Area Type			
	Rural	Urban	Namakkal	Tamil Nadu
Higher	28.84	43.19	34.12	50.06
Lower	15.16	15.83	15.41	8.17
About the same	37.76	27.32	33.92	31.66
DK/RF	18.24	13.66	16.55	10.11
Total	**100**	**100**	**100**	**100**

Almost equal proportions of households in Namakkal district expected their future incomes to rise or remain the same. While a majority of the urban households in the district expected their income to increase in the following five years, the percentage of households expecting no change in their future income was higher in rural areas compared to urban areas.

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

Expectation of Future Income	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Higher	26.10	18.03	39.27	32.55	100.00	39.09	34.12
Lower	17.25	3.06	12.43	26.61	0.00	3.09	15.41
About the same	31.95	74.17	31.54	26.77	0.00	57.24	33.92
DK/RF	24.70	4.74	16.77	14.08	0.00	0.58	16.55
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Almost three quarters of ST households and more than half the General category households expected their future income to remain the same. More than a quarter of the MBC households expected their income to reduce in the next five years. Only around 18 percent of ST households expected an increase in their future income. Almost 39 percent of the BC households expected an increase in their future income. The results for the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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 lived in their own house or stayed at a rented house are given in Chart 3.14.

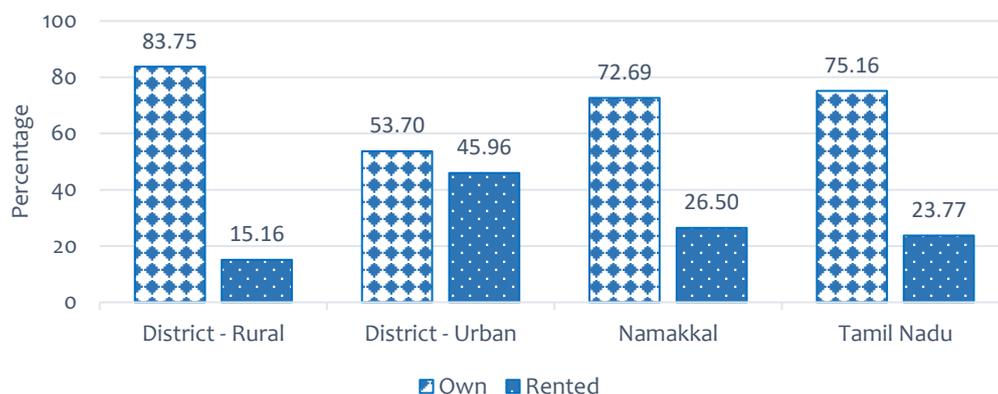*Chart 3.14 Ownership Status of the Households' Dwelling/House – Area-wise Percentages*

Chart 3.14 shows that the proportion of households living in their own house in the district was lower than the state level estimate. Namakkal district was ranked twenty-second among the then 32 districts of Tamil Nadu in terms of percentage of households living in their own house (TNHPS-PBS, 2021). While most of the households in rural areas lived in their own house, a larger proportion 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 a 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						Namakkal
	SC	ST	BC	MBC	DNC	General	
Own	77.93	96.59	70.12	65.52	0.00	83.08	72.69
Rented	20.75	2.46	29.15	33.96	100.00	16.92	26.50
Others	1.32	0.95	0.45	0.51	0.00	0.00	0.68
DK/RF	0.00	0.00	0.28	0.00	0.00	0.00	0.13
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 3.21 shows that more than 70 percent of all social group households in the district except MBC lived in their own house. The district estimates for those living in own house was higher than their respective state level estimates for the ST, BC, and General category households at 82.67 percent, 68.29 percent and 62.55 percent respectively (TNHPS-PBS, 2021). The results for the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

A detailed analysis of ownership of houses showed that out of the 72.69 percent households (see Chart 3.14) that lived in an own house in the district, 14.99 percent of houses were built under a government scheme, which was slightly 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 a Government Scheme - Social Group-wise Percentages

House Constructed Under a Government Scheme	Social Group					
	SC	ST	BC	MBC	General	Namakkal
Yes	31.96	35.34	6.72	12.87	0.00	14.99
No	67.48	63.95	93.19	87.13	100.00	84.80
DK/RF	0.56	0.71	0.09	0.00	0.00	0.21
Total	100	100	100	100	100	100

In Namakkal district, SC and ST households had the highest percentage of houses built under a government scheme compared to other social groups. The sole DNC household surveyed in the district did not live in an own house and hence this social group is not included in Table 3.22.

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 kutccha, pucca or semi-pucca. The percentage of houses that come under each type are given below.

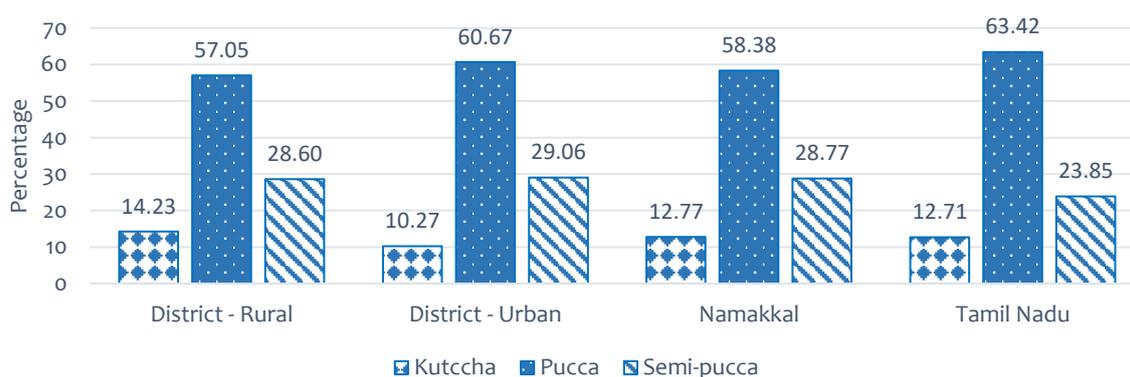*Chart 3.15 Type of House – Area-wise Percentages*

Chart 3.15 shows that more than half the households in Namakkal district were living in pucca houses, but this was lower 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 (TNHPS-PBS, 2021).

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 Namakkal district. The primary sources[6] 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 Source of Drinking Water of Households – Area-wise Percentages
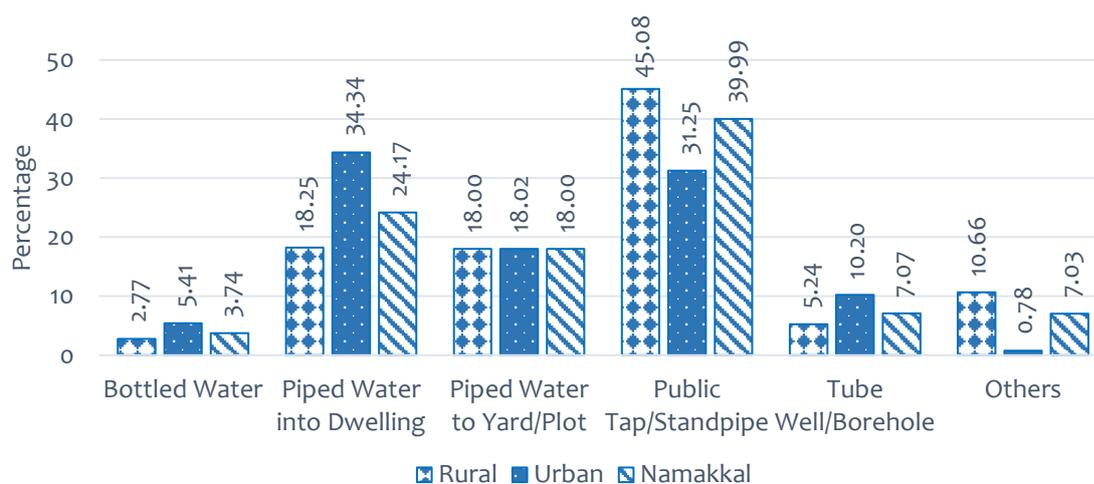

Chart 3.16 shows that the most used primary source of drinking water of households in Namakkal district was public tap or standpipe, which is higher than the state estimate for this water source at 32.84 percent (TNHPS-PBS, 2021). The state PBS estimates showed that piped water into the dwelling in urban areas—about 37.02 percent—and public tap/standpipe in rural areas—about 44.51 percent—were the primary water sources of households (TNHPS-PBS, 2021). A similar pattern was observed in Namakkal district.

3.5.4 Electricity

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

Chart 3.17 shows the electrification status of households in Namakkal district, along with a comparison to the electrification status during Census (2011).

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[6] Primary source - Water that is availed for the greater part of the year
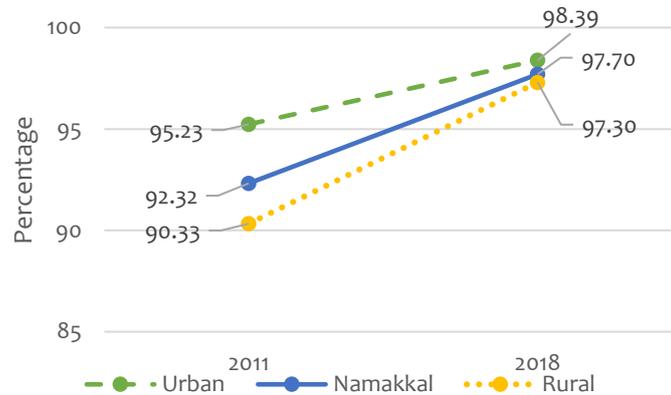
Chart 3.17 shows rapid electrification in rural and urban areas of Namakkal district between 2011-2018. The rate of growth of households with electricity was higher in rural areas compared to the urban areas. The electrification status in the district was slightly higher than the state estimate of 97.6 percent (TNHPS-PBS, 2021).

3.5.5 Primary Cooking Fuel

A comparison of Census (2011) and the PBS estimates on the main fuel[7] used for cooking by the households in the district is given in Chart 3.18.

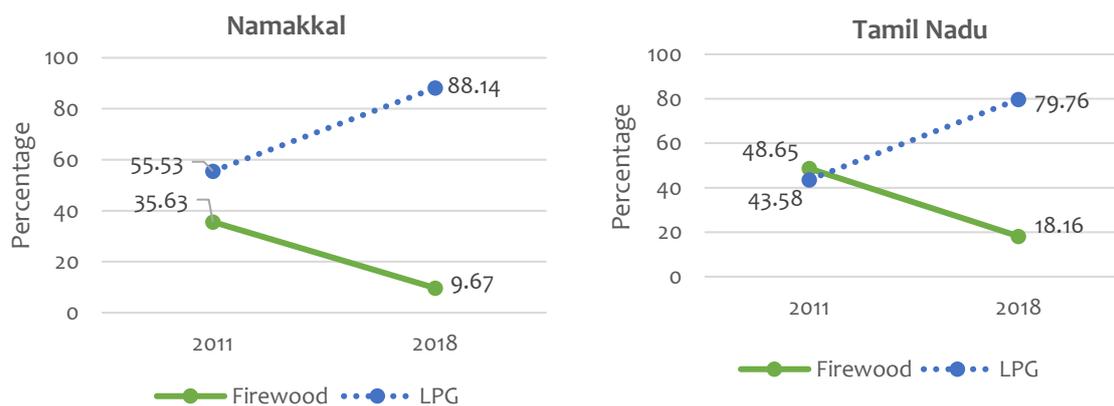*Chart 3.18 Comparison of Primary Cooking Fuel – Namakkal and Tamil Nadu*

Chart 3.18 shows that the use of LPG as the primary cooking fuel had increased tremendously in the district from 2011 (Census (2011)) to 2018. Firewood use had reduced to less than 10 percent. Compared to other districts of Tamil Nadu, Namakkal district was

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[7] Primary Cooking Fuel - Fuel that is used for the greater part of the year

ranked seventh in terms of LPG use and ranked twenty-fifth in terms of firewood use as primary cooking fuel (TNHPS-PBS, 2021).

Chart 3.19 Comparison of Main Fuel used for Cooking – Area-wise Percentages
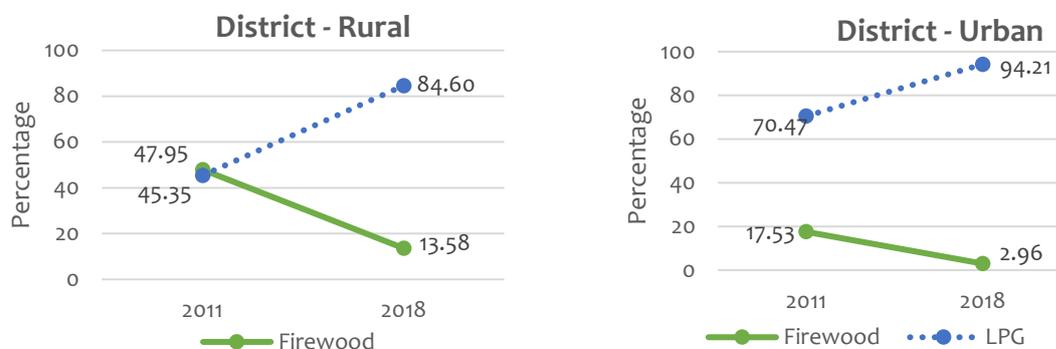

Chart 3.19 shows that the predominant fuel in rural areas in the district had reversed from firewood to LPG in the period 2011-18. LPG uptake had increased further in urban areas, and that of firewood had dropped to a minuscule amount during the same period.

Table 3.23 shows the use of various fuels for cooking among households of different social groups in Namakkal district.

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

Primary Cooking Fuel	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Firewood	10.57	42.61	5.94	8.22	0.00	18.95	9.67
Kerosene	2.80	0.00	1.27	1.94	0.00	0.00	1.63
LPG	86.18	57.39	92.24	89.33	100.00	79.60	88.14
Others	0.31	0.00	0.40	0.41	0.00	0.00	0.35
DK/RF	0.14	0.00	0.15	0.10	0.00	1.46	0.21
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

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

Table 3.23 shows that, while majority of BC, MBC and SC households used LPG as the primary cooking fuel, more than 40 percent of the ST households still used firewood as the primary cooking fuel. A large percentage of SC and BC households were using LPG as primary cooking fuel compared to the state estimates of 70.00 percent and 85.9 percent respectively (TNHPS-PBS, 2021). But a lower percentage of General households were using LPG as the primary cooking fuel in the district compared to the state estimate of 96.20 percent (TNHPS-PBS, 2021). The results for the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

3.5.6 Sanitation

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

Chart 3.20 Presence of Latrine within the Premises of the Household – Area-wise Percentages
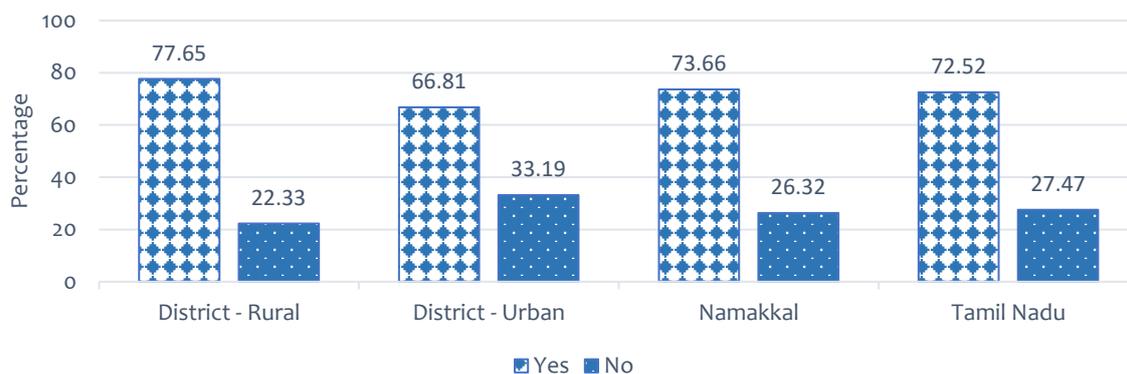
The percentage of households with latrine within house premises had increased from 40.69 percent in 2011 (Census, 2011) to 73.66 percent in 2018. Namakkal district was positioned sixteenth in the state among the 32 districts in terms of this indicator (TNHPS-PBS, 2021). The percentage of households equipped with latrine facilities in the district was higher than the state level estimate. A greater proportion of urban households did not have a latrine within the house premises compared to rural households, contrary to the usual trend.

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

Latrine within House Premise	Social Group						
	SC	ST	BC	MBC	DNC	General	Namakkal
Yes	56.58	72.84	78.75	76.37	100.00	89.80	73.66
No	43.42	27.16	21.23	23.63	0.00	10.20	26.32
DK/RF	0.00	0.00	0.03	0.00	0.00	0.00	0.01
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. A high proportion of General and BC households had latrine access within the house premises. The percentages of SC, ST, and MBC households with latrine access in the district were higher than their respective state level estimates of 52.2 percent, 56.0 percent and 67.5 percent respectively (TNHPS-PBS, 2021). Yet, around 43 percent of SC households and more than a quarter of ST households did not have a latrine within the

house premises. The single DNC household surveyed in the district had latrine facilities within the house.

The presence of latrine facilities in the premises of households owning different types of houses in in the rural and urban areas of Namakkal district are compared in Chart 3.21.

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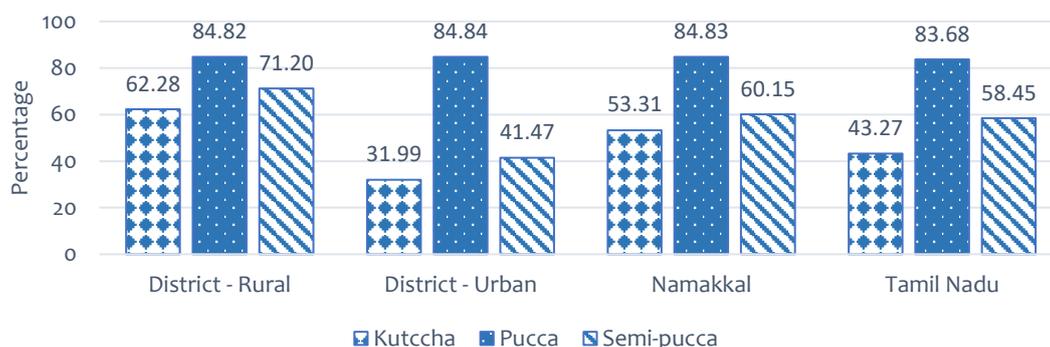

Chart 3.21 shows that the percentage of pucca houses with latrine facilities was higher than for semi-pucca and kutccha houses in the district. The percentages of latrine facilities in kutccha, pucca and semi-pucca houses in the district were higher than their respective state estimates. The percentage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

The percentage of total households in the district following open defecation declined from 43.85 percent in 2011 (Census, 2011) to 14.91 percent in 2018. The alternative practices of defecation followed by 26.32 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 – Area-wise Percentages
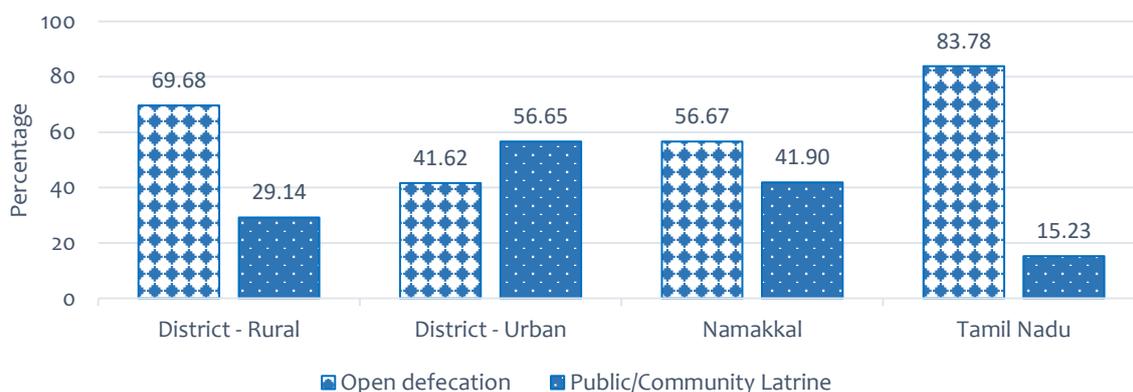
Chart 3.22 shows that 56.67 percent of households without latrine within the premises of the house in Namakkal district were following open defecation in 2018, which was significantly lower than the state PBS estimate. The practice of open defecation was higher in rural areas compared to urban areas of the district. As per the state PBS report, the district was ranked twenty-third in terms of the percentage of total households following open defecation.

4. Conclusion and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of Namakkal district was conducted from the sample of 5,935 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.

Namakkal is one of the better performing districts of Tamil Nadu, ranking twelfth in the Human Development Index and fourth in the Gender Inequality Index. With around 60 percent of the population residing in villages, it is predominantly a rural district. It ranks fifth in terms of percentage of employed population and sixth in terms of percentage of female employed population, along with a very low percentage of unemployed population. The ownership pattern of agricultural land and agricultural, allied agricultural and fishing assets in the district were higher than the state estimates. Income inequality as measured by the Gini coefficient was lower than the state estimate. However, despite the good performance in these indicators, there are some areas of concern with respect to Namakkal.

It ranks twenty-fourth in terms of literacy rate, 5 percentage points below the state average of 85.40 percent. There is a wide gender gap in literacy, reaching 15.55 percent in rural areas. The rural literacy rate was almost 8 percent less than the urban literacy rate. The Scheduled Caste, Scheduled Tribe and Most Backward Caste communities performed poorly compared to the others in terms of attainment of formal schooling. While a district-wide intervention is required to increase educational access, targeted policies are also important to close the gender and social group disparities that are mentioned above.

The district ranks well in terms of LPG usage, ranking seventh, 8 percentage points more than the state average. It is ranked twenty-fifth in firewood usage, suggesting minimal dependence on firewood as the primary fuel. However, more than 40 percent of Scheduled Tribe households are using firewood as their primary source of fuel for cooking, with only 57 percent of the households using LPG. Schemes to increase availability of subsidised LPG for this community could help overcome this disparity.

In terms of latrine presence within the household, the district's performance is average with a ranking of sixteen. The Scheduled Caste community however performs poorly in this indicator, with only 56 percent of them having access to a latrine within the household, compared to the district average of 74 percent. Policy intervention to improve the sanitation of this marginalised community is essential for their wellbeing.

In conclusion, Namakkal is ahead in terms of most development indicators, other than literacy which requires attention. However, there are disparities when it comes to education, LPG use, firewood use and sanitation which require targeted policy measures to improve the situation of the marginalised groups.

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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.

TNHPS

Tamil Nadu Household Panel Survey
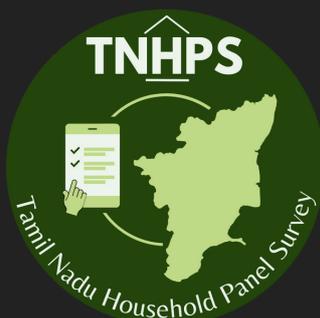
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