Department of Economics & Statistics

Madras Institute of Development Studies

Ariyalur

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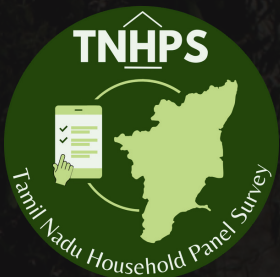
Tamil Nadu Household Panel Survey
Pre-Baseline District Report 2018-19

Tamil Nadu Household Panel Survey (TNHPS)

Pre-Baseline Survey (PBS) District Report 2018-19

Ariyalur District

February 2024

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Summary of PBS Findings

Demographic Indicators

- Ariyalur had a sample size of 6,354 households, of which 71.07 percent of households were from rural areas and 28.92 percent of households were from urban areas.

- The district had a huge demographic dividend with 70.73 percent of the population in the age group up to 45 years. Around 30 percent of the population was between 26-45 years of age. The percentage of people above 60 years of age was 11.23 percent.

- Over 95 percent of the households in the district followed Hinduism.

- The BC and MBC categories were the largest in number, together constituting around 70 percent of the total population in the district and around 30 percent of the households belonging to SC category.

Education

- The district had a literacy rate of 78.94 percent, which was lower than the state estimates of 85.40 percent.

- The gender gap in the literacy rate of the district was higher in rural areas at 16.28 percent than in urban areas at 8.60 percent.

- Around 75 percent of the population had formal schooling in the district. Among the population with no formal schooling, around 85 percent did not have functional literacy.

Employment

- The share of unemployed persons in the district was at 4.16 percent in the district. Only 47.40 percent of the total population was employed and 48.39 percent were not in the labour force.

- Around 67.92 percent of the males were employed and only around 29.49 percent of the females were employed, which shows the prevailing gender gap in employment.

- Most males who were currently not working were students—about 51.86 percent—whereas most females—about 68.74 percent—in this category were homemakers.

- Majority of the population in the district were casual labourers in the agriculture sector.

- Around 20 percent of the BC population were self-employed in the agriculture sector.

- The self-employed population in the non-agriculture sector dominated in urban areas, while casual labourers in the agriculture sector were higher in rural areas of the district.

Land Ownership and Assets

- Around 46.17 percent of the households owned agricultural land, which was higher among rural households than urban households. BC and MBC category households were the predominant agricultural land owners in the district.

- About 68.97 percent of households in the district depended on rainfed irrigation. A higher percentage of urban households at 85.10 percent owned unirrigated land than rural households at 67.87 percent.

- Around 93.12 percent of the agricultural land owners had marginal or small (less than 2 hectares) land.

- Around 40.41 percent of the households owned agriculture, allied or fishing assets in the district. The number was higher among rural households than urban households.

- Around 86.81 percent of the households in the district, owned at least one household asset.

Household Income

- The annual mean income of the households in the financial year 2017-18 was ₹91,180 in the district; in the urban areas it was ₹1,69,382 and in rural areas it was ₹80,017.

- The mean income from salaried work was the highest at ₹1,76,358.

- The income inequality in the district (0.544) was lower than the state estimate (0.563).

- Around 50 percent of the households in the district expected their income to increase in the next five years. Around a quarter of the households expect their income to remain the same. Less than 15 percent of the households expected their income to decrease in the next five years. Urban households were more optimistic than the rural households about the increase in their future income.

Housing

- In the district, 91.21 percent of the households resided in their own houses. A higher percentage of rural households resided in their own houses compared to the urban households in the district.

- Out of the 91.21 percent that owned houses in the district, only 16.91 percent of houses were built under a government scheme and SC and ST households were the main beneficiaries of the government housing schemes.

- Around 46 percent of the households in the district lived in pucca houses, around 34 percent lived in semi-pucca and less than 20 percent lived in kaccha houses.

Access to Drinking Water

- In both urban and rural areas, the most commonly used primary source of drinking water in the district was public tap or standpipe at around 60 percent.

Electricity

- Around 96.66 percent of the households in the district had an electricity connection as compared to the state estimate of 97.60 percent.

Cooking Fuel

- Only 45 percent of the households used LPG as primary cooking fuel.

- Around 55 percent of the households in the district used firewood as primary cooking fuel.

Sanitation

- Around 37 percent of the households had latrine within the premises of the household. Access to latrine facilities was higher among urban households than rural households of the district.

- The percentage of total households in the district practicing open defecation had declined from 80.05 percent in 2011 (Census, 2011) to 63.06 percent in 2018, as per the PBS estimates.

- Out of the 63 percent of households that did not have a latrine within the premises of the household, almost all the households practiced open defecation.

- The district ranked first in terms of open defecation.

1. Introduction

1.1 Profile of Ariyalur District

Ariyalur district in Tamil Nadu was formed in the year 2007 by bifurcating Perambalur district. It is in the Central region of the state, with Cuddalore in the North, Nagapattinam in the East, Thanjavur in the South, and Tiruchirappalli and Perambalur in the West.

According to the Census (2011), Ariyalur had a total population of 7.55 lakhs, accounting for approximately 1.05 percent of Tamil Nadu's total population, which was 7.21 crores. The district comprised 1.97 lakh households, with 88.9 percent residing in rural areas. The male population was 49.64 percent, and the female population was 50.36 percent. Ariyalur demonstrated a child-sex ratio of 896.54 compared to the state average of 943.27. Within the social groups, 23.3 percent of the population belonged to the Scheduled Castes, while 1.4 percent belonged to the Scheduled Tribes. The literacy rate in the Ariyalur district stood at 71.34 percent, compared to the state's average of 80.09 percent. The male literacy rate was reported to be 81.23 percent, while the female literacy rate was reported to be 61.74 percent, highlighting the need for investment in women's education.

In the fiscal year 2018-19, Ariyalur's Net District Domestic Product was ₹9,95,558 lakh, ranking at thirty-first position among all districts. The district's per capita Net District Domestic Product was recorded at ₹1,24,531, ranking it at twenty-fourth position among districts. 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 34 percent to its domestic income, while the secondary (industry) and tertiary (service) sectors contribute approximately 13 percent and 53 percent, respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu State Planning Commission (2017a), Ariyalur ranked thirty second in terms of the Human Development Index with a score of 0.282, indicating the need for improving the development of the general population. It ranked thirty second in the Gender Inequality Index again with a score of 0.118, demanding attention to expanding resources to close the gender divide. In terms of the Child Development Index, the district again ranked thirty second with a score of 0.41, calling for the need to invest more in developing the youth. Additionally, Ariyalur ranked twenty-eighth in terms of the Multidimensional Poverty Index with a score of 0.62. The district must make substantial investments and implement targeted initiatives to combat multidimensional poverty in the

district. Ariyalur district faces economic challenges with lower Net District Domestic Product and per capita income rankings. The district requires substantial efforts to improve human development, address gender inequality, and enhance child development outcomes. Additionally, the district must prioritize significant investment to address its below-average performance in poverty alleviation.

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 analyze the patterns of change in various socio-economic indicators, including households' income, occupational structures and living conditions.

The PBS collected data on a comprehensive set of socio-economic indicators for the period 2018-19. The results provided district-level estimates for these indicators, and informed the sampling design and the associated sampling frame for the first wave of the TNHPS project. In the absence of Census 2021, the PBS estimates act as a valid benchmark for the state 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 1476 Primary Sampling Units—684 rural PSUs and 792 urban PSUs.

This report analyzes data from the PBS for the Ariyalur district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Ariyalur (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Ariyalur district. The sample size for the district was 6,354 households, among which 4,516 households were from rural areas and 1,838 households were from urban areas. The blocks covered during the survey were: Ariyalur, Andimadam, Sendurai, T. Palur and Thirumanur.

2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 6,489 households in the Ariyalur district were selected using a multi-stage stratified sampling design[1]. The final sample size was 6,354 households, comprising those who participated in the survey. Among these, 71.07 percent of households were from rural areas and 28.92 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	Areas Type					
	Rural		Urban		Ariyalur	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	4516	97.45	1838	99.08	6354	97.92
Non-Response	25	0.54	11	0.59	36	0.55
Non-sample	93	2.01	6	0.32	99	1.53
Total	4634	100	1855	100	6489	100

Ariyalur district had a higher response rate—willingness of households to participate in the TNHPS-PBS—of 97.92 percent as compared to the state response rate of 96.5 percent. Only 0.55 percent of households were not willing to participate in the survey. On the other hand, 1.53 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 3.83 in 2011 (Census, 2011) to 3.44 in 2018. As per the PBS estimates, 47.45 percent of the population in the district were male, and 52.55 percent of the population were female. Around 23.12 percent of the households in the Ariyalur district were headed by females, which was higher than the state estimate of 18.93 percent (TNHPS-PBS, 2021).

Chart 3.1 Age-wise Distribution of Population
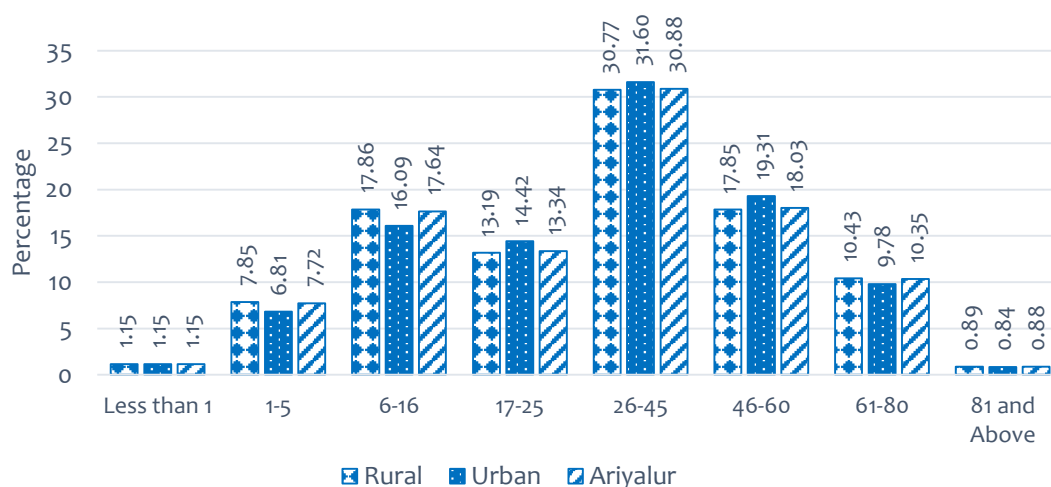
Chart 3.1 shows that around 30.88 percent of the population in the district were in the age group of 26 to 45 years. The population—between 17 to 60 years— in the district was 62.25 percent, which was comparatively lower than the state estimate of 66.00 percent (TNHPS-PBS, 2021).

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

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

As per the PBS estimates, the religion-wise distribution of the households in the district shows that 96.40 percent of the households practiced Hinduism, 3.05 percent practiced Christianity and 0.54 percent followed Islam.

Table 3.1 Social Group-wise Distribution of the Households

Social Group	Percentage
SC	29.99
ST	2.13
BC	33.51
MBC	34.05
General	0.25
DK/RF	0.07
Total	**100**

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

As per the PBS estimates, the highest percentage of the households in the Ariyalur district belonged to the MBC and BC categories. The percentages of SC and ST households in the district were 29.99 percent and 2.13 percent respectively in 2018.

The percentage of General category households in Ariyalur district was only 0.25 percent and only thirty-five General category households were sampled in the district. Hence, the results pertaining to the general category discussed in this report must be interpreted within 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 the Ariyalur district.

3.2.1 Education

The literacy rate of the Ariyalur district during the period 2011 and 2018 is given in Table 3.2. As per Census 2011, a person—age 7 and above—who can both read and write with understanding in any language, is treated as literate. In the PBS, literacy rate is measured by including those who have received formal schooling and those who can read and write a simple sentence.

Table 3.2 Literacy Rates between Census (2011) and PBS 2018

Gender	District- Rural		District- Urban		Ariyalur		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	80.38	86.03	87.99	94.18	81.23	87.07	86.77	90.97
Female	60.06	69.75	75.01	85.58	61.74	71.75	73.40	80.15
Total	70.07	77.39	81.39	89.63	71.34	78.94	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 Ariyalur district was 71.34 percent—lesser than the state average of 80.09 percent. The PBS estimates show that in the year 2018, the literacy rate in Ariyalur district had increased to 78.94 percent, which continued to be less than the state estimate of 85.40 percent. Ariyalur district registered a growth rate of 7.60 percent in literacy rate between 2011 and 2018 while the state registered a growth rate of 5.31 percent. The difference in literacy rate between state average and Ariyalur district was 8.75 percent in 2011, which had reduced to 6.46 percent in 2018. Both male literacy as well as female literacy in the Ariyalur district had recorded an increase during the period under consideration. The gender gap in literacy rate has declined from 19.49 percent in 2011 to 15.32 percent in 2018. The district's ranking on literacy rate had improved from thirty-first position among the then 32 districts in 2011 (Tamil Nadu State Planning Commission, 2017b) to twenty-ninth position.

The literacy rate in the rural areas of the district was only 70.07 percent in the year 2011 (Census, 2011), which was less than the overall literacy rate of the district. According to the PBS estimates, literacy rate in the rural areas of Ariyalur district had increased to 77.39 percent in 2018. The rural male and female literacy rate had also recorded an increase between 2011 and 2018. The literacy rate in the urban areas of Ariyalur district had also increased from 81.39 percent (Census, 2011) in the year 2011 to 89.63 percent in the year 2018. There was an increase in both male literacy and female literacy in the urban areas of Ariyalur district between 2011 and 2018. The urban literacy rate continued to be higher than rural literacy rate in 2018. The gender gap in literacy rate was lower in urban areas compared to the rural areas of the district.

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 Ariyalur district. The area-wise education status of the population in Ariyalur district is given below.

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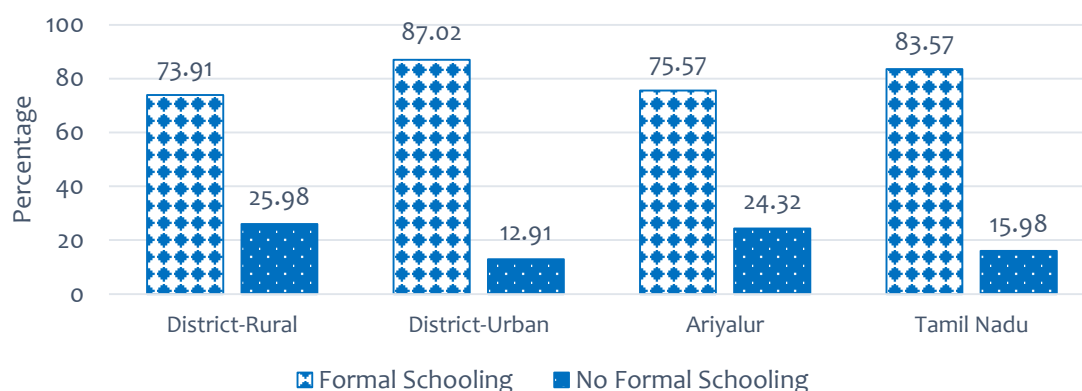
*Others and Don't Know/Refuse to Answer categories are not included in any chart, unless their value is substantially high. Therefore, the total might not add up to 100 percent.

Chart 3.2 shows that 75.57 percent of the population in the district had attended formal schooling compared to a higher state estimate of 83.57 percent. The percentage of the population with formal education in the urban areas was significantly higher than the rural areas of the district.

Chart 3.3 Formal Schooling of the Population – Gender-wise
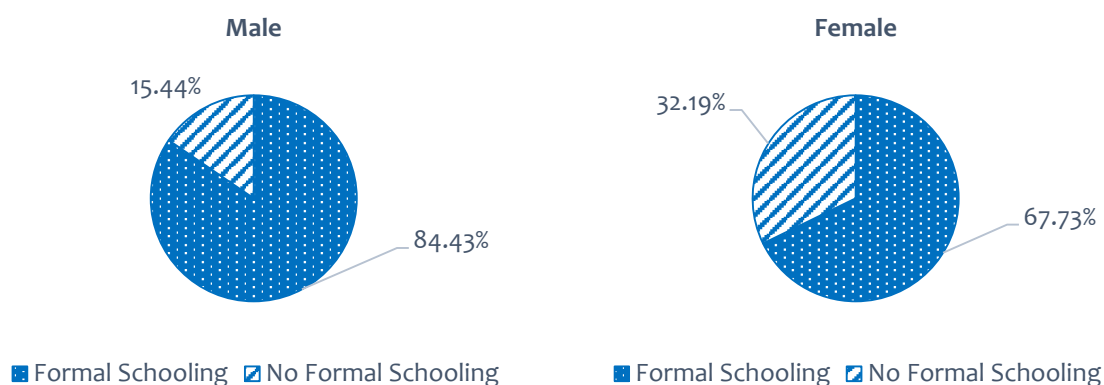
Chart 3.3 shows the percentage of male and female population in Ariyalur district that reported to have acquired formal education. The percentage of the population that acquired formal education was higher among male population compared to female population. Around 15.44 percent of male population did not have formal education compared to one-third of the female population.

A district-level analysis on education attainment status had shown greater divergence across various social groups, as discussed below.

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

Education Status	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Formal Schooling	73.38	53.99	77.33	77.03	100	75.57
No Formal Schooling	26.58	45.70	22.55	22.82	0.00	24.32
Others and DK/RF	0.04	0.31	0.12	0.14	0.00	0.11
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 3.3 shows the percentage of the population who had attended formal schooling across various social group categories in the Ariyalur district. Around three-quarters of the BC and SC population in the district had received formal education. A higher percentage of ST households did not have formal education. A 100 percent of general population received formal education. However, the results for the General category must be interpreted in the context of their sample size[4]

Table 3.4 shows more precise information on the highest level of formal educational attainment of the specified population.

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

Educational Attainment	Area Type		
	Rural	Urban	Ariyalur
Primary (I to V)	27.34	19.91	26.26
Middle (VI to VIII)	21.24	17.61	20.71
High School (IX to X)	23.20	22.87	23.15
Higher Secondary (XI to XII)	13.70	13.90	13.73
Bachelor's degree	6.88	12.30	7.67
Diploma Degree	4.91	5.88	5.06
Post Graduate Degree	2.57	7.44	3.28
Others/DK/RF	0.15	0.08	0.14
Total	**100**	**100**	**100**

The PBS estimates show that around 83.85 percent of the district's population had completed schooling up to higher secondary level. Tertiary education comprises bachelor's degree, diploma, postgraduate degree and other higher education. The district

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[4] As discussed in section 3.1, only thirty-five general category households were sampled in the district. Hence, the results pertaining to the general category discussed in this report must be interpreted within this context.

estimate showed that 16.01 percent of the population completed tertiary education. The percentage of the population with tertiary education was higher in urban areas at 25.62 percent compared to rural areas at 14.36 percent.

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

Educational Attainment	Gender		
	Male	Female	Ariyalur
Primary (I to V)	25.67	26.90	26.26
Middle (VI to VIII)	20.61	20.82	20.71
High School (IX to X)	23.78	22.46	23.15
Higher Secondary (XI to XII)	12.16	15.47	13.73
Bachelor's degree	7.73	7.61	7.67
Diploma Degree	7.14	2.76	5.06
Post Graduate Degree	2.75	3.86	3.28
Others/DK/RF	0.16	0.12	0.14
Total	**100**	**100**	**100**

Table 3.5 shows the percentage of males and females, with formal education. In the district, a greater proportion of females have attained school education, while a higher percentage of males hold diplomas. Additionally, a larger percentage of females have completed post-graduation studies.

In order to see the social group-wise disparity in the educational attainment in Ariyalur district, table 3.6 shows the percentage of population under each category across various education levels.

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

Educational Attainment	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Primary (I to V)	26.64	36.99	26.58	25.30	6.77	26.26
Middle (VI to VIII)	21.62	29.39	20.83	19.39	15.60	20.71
High School (IX to X)	24.59	17.71	22.17	23.09	26.47	23.15
Higher Secondary (XI to XII)	14.18	9.74	13.91	13.39	10.27	13.73
Bachelor's degree	6.99	1.69	7.84	8.19	27.83	7.67
Diploma Degree	3.84	3.18	5.19	6.09	4.49	5.06
Post Graduate Degree	2.08	0.74	3.33	4.36	8.56	3.28
Others/DK/RF	0.05	0.57	0.16	0.19	0.00	0.14
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 3.6 shows that a higher percentage of the population from almost all social groups had completed primary education. Apart from the general category, the percentage of the population with tertiary education were higher among the MBC population at 18.64 percent, followed by BC at 16.36 percent. The SC and ST population with tertiary education, was only 12.91% and 5.61% respectively. Education. The proportion of population with tertiary education within SC, ST and BC categories in the district was lower than the corresponding state level estimates, and higher for MBC population .

Around 24.32 percent of the population had not received formal education in the Ariyalur 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	Ariyalur
Yes	13.40	20.22	13.86
No	86.29	79.78	85.85
DK/RF	0.30	0.00	0.28
Total	**100**	**100**	**100**

The PBS estimates show that only 13.86 percent of the population without formal schooling had functional literacy. The functional literacy rate in urban areas was significantly higher than in rural areas of the district.

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

Functional Literacy	Social Group				
	SC	ST	BC	MBC	Ariyalur
Yes	28.12	3.79	8.34	5.16	13.86
No	71.56	96.21	91.18	94.75	85.85
DK/RF	0.32	0.00	0.48	0.09	0.28
Total	**100**	**100**	**100**	**100**	**100**

*Among the General category households surveyed, the population from all the households had formal education.

Table 3.8 shows the functional literacy status of the population with no formal schooling, across various social group categories. Functional literacy was relatively higher among SC category and lower among ST category.

3.2.3 Employment Status

This section looks at the employment status of the household members, types of employment that the household members are engaged in, and the unemployment rate at the district level. It also compares the findings with state estimates. In the PBS, the population of 14 years and above—working population hereon—is classified as employed, unemployed and not in labour force[5].

The category employed consists of the following categories:

    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,

    x)   People who are involved in multiple occupations, and

    xi)   People who are involved in other types of work.

The unemployed group was defined as the population aged 14 years and above who did not work but were seeking and/or available for work.

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

    (i)   People who attended educational institutions,

    (ii)   People who attended domestic duties only,

    (iii)   Rentiers, pensioners, remittance recipients, etc.,

    (iv)   People who were not able to work due to disability and

    (v)   Others (including begging, etc.).

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

Chart 3.4 Employment Status of Population – Area-wise
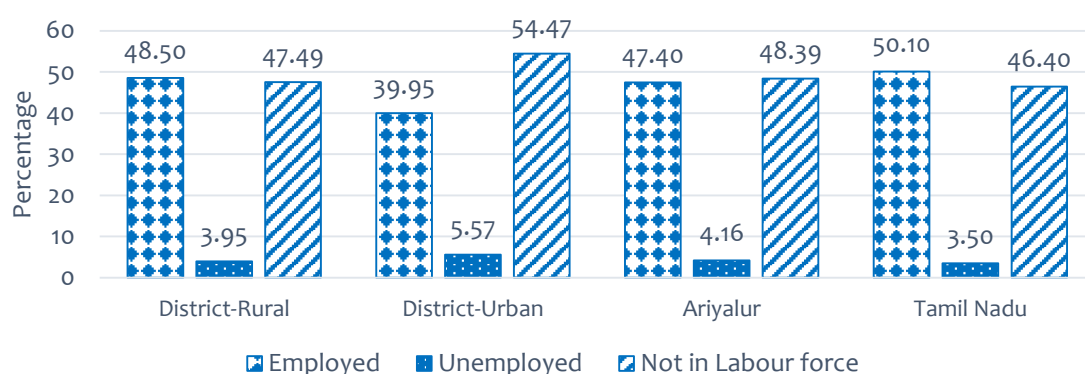
The overall percentage of the employed population in the district was lower than the state estimate. The percentage of population employed in rural areas was higher than the urban areas of the district. The percentage of unemployed population in the district was higher than the state estimate. The unemployment status in the rural areas of the district was 3.95 percent—higher than the state rural estimate of 3.60 percent—whereas the district urban unemployed population was 5.57 percent, which was also significantly higher than the state urban estimate of 3.30 percent. Ariyalur district was positioned twenty-fifth among all districts in Tamil Nadu in terms of employed population and positioned eighth in terms of the unemployment status.

Chart 3.5 Employment Status of the Population – Gender-wise
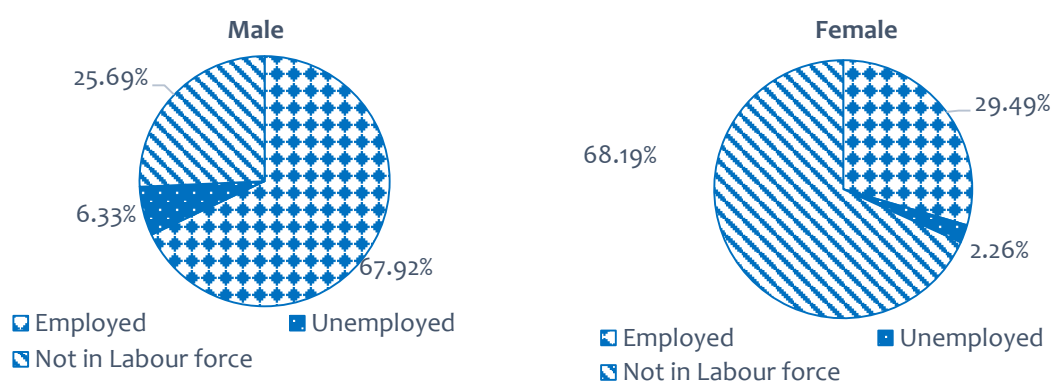
Chart 3.5 shows that 67.92 percent of the male population were employed, while only 29.49 percent of the female population were employed. Decreased female labour force participation has been well documented at the national level (Das et al., 2015; Desai, 2017; Desai & Joshi, 2019). The female work participation of the district was higher than the national average of 23.3 percent in 2017-18 (National Statistical Office, 2019), and similar to the state estimates of 29.96 percent. Among the 68.19 percent of the female population that were not in the workforce, the majority of them—about 68.74 percent—were

homemakers (see Chart 3.7). Unemployment status was higher among male as compared to that of the female population. Ariyalur district was positioned nineteenth in terms of female work participation and positioned sixteenth in terms of female unemployment status (TNHPS-PBS, 2021).

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

Work Type	Areas Type		
	Rural	Urban	Ariyalur
Self Employed Agriculture	20.29	4.03	18.52
Self Employed Non-Agriculture	7.51	30.38	10.00
Self Employed Allied Agriculture	0.93	0.52	0.89
Casual Labourer Agriculture	38.87	8.18	35.53
Casual Labourer Industry	6.57	7.88	6.72
Casual Labourer Service	4.81	15.93	6.02
Casual Labourer (Others)	1.00	0.52	0.95
Salaried Worker Government	2.98	14.03	4.19
Salaried Worker Private	7.71	17.58	8.79
Multiple Occupations	9.07	0.66	8.15
Other	0.24	0.28	0.24
DK/RF	0.01	0.00	0.00
Total	**100**	**100**	**100**

Table 3.9 shows that the highest proportion of the working population in the district were casual labourers in the agriculture sector at 35.53 percent, followed by self-employed in the agriculture sector at 18.52 percent. The highest proportion of the working population in the state were salaried private workers at 21.82 percent (TNHPS-PBS, 2021). Casual labourers in the agriculture sector were predominant in rural areas at 38.87 percent, while self-employed in the non-agricultural sector were predominant in urban areas at 30.38 percent in the district.

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

Work Type	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Self Employed Agriculture	4.32	1.24	23.10	28.62	7.09	18.52
Self Employed Non-Agriculture	5.80	3.31	12.15	11.91	37.46	10.00
Self Employed Allied Agriculture	0.28	0.22	1.36	1.00	2.32	0.89
Casual Labourer Agriculture	51.78	74.24	22.80	30.84	0.00	35.53
Casual Labourer Industry	8.27	3.92	7.13	5.08	0.00	6.72
Casual Labourer Service	9.71	12.02	4.16	3.98	11.56	6.02
Casual Labourer (Others)	0.92	0.20	0.83	1.18	0.00	0.95
Salaried Worker Government	4.02	2.39	3.53	5.12	15.78	4.19
Salaried Worker Private	9.72	1.42	10.10	6.99	25.80	8.79
Multiple Occupations	4.94	1.03	14.72	4.88	0.00	8.15
Other	0.24	0.00	0.12	0.40	0.00	0.24
DK/RF	0.00	0.00	0.00	0.02	0.00	0.00
Total	**100**	**100**	**100**	**100**	**100**	**100**

The estimates show that more than half of the population from SC and ST category were engaged as casual labourers in the agriculture sector. A higher percentage of the BC population were self-employed in the agriculture sector. The percentage of salaried workers was highest among the general category and lowest among the STs. The state estimates revealed that a majority of the population from SC, ST and MBC category were casual labourers in the agricultural sector and a higher percentage of the BC and General population were salaried workers in the private sector (TNHPS-PBS, 2021).

Chart 3.6 Composition of the population not in the labour force -Area-wise
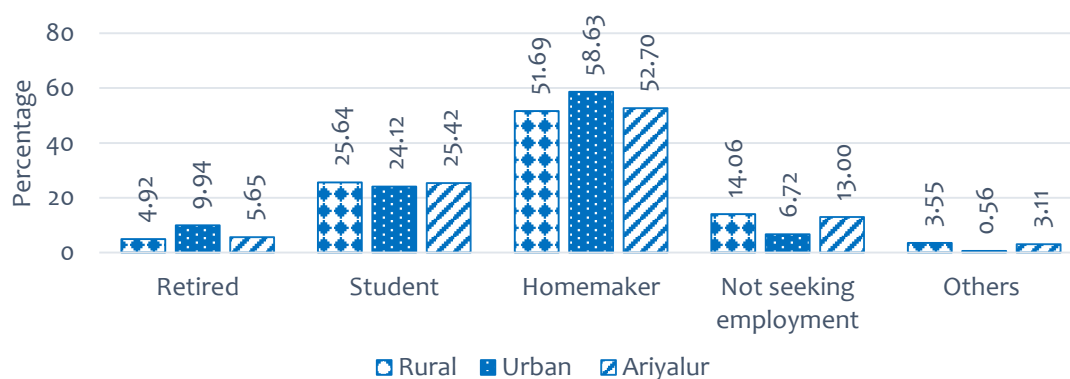
Chart 3.6 shows that, similar to the trend at the state level, more than half the population that was not in the labour force in the district were homemakers involved in unpaid domestic duties of the household, followed by students. The proportion of the population that were not seeking employment or were students, was 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 – Gender-wise
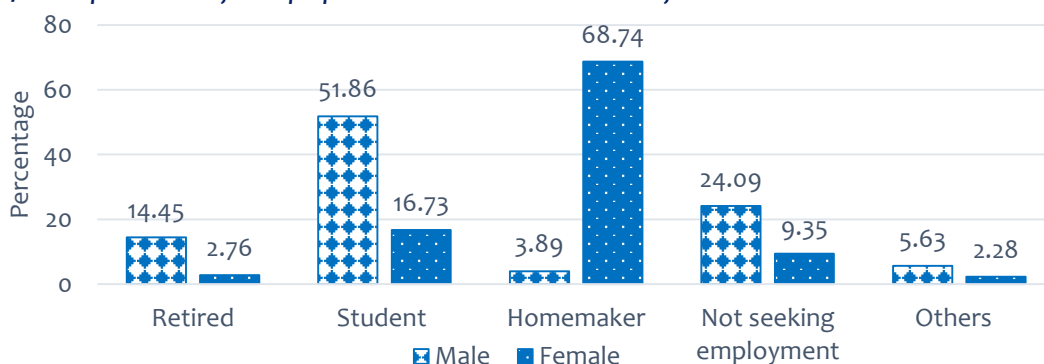
The gender-wise distribution of the population currently not in the labour force is given in Chart 3.7. Chart 3.7 shows that only 16.73 percent of the females that were not in the labour force population were students whereas in the case of male respondents, a majority were

students. A majority of females that were not in the labour force were homemakers. These trends are similar to the state level trends. 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 Labour Force - Social Group-wise Percentages

Current Status	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Retired	4.33	10.97	5.82	6.27	16.39	5.65
Student	29.46	26.79	21.55	25.65	16.37	25.42
Homemaker	47.85	48.97	55.26	54.51	63.25	52.70
Not seeking employment	16.02	10.90	13.96	9.69	2.31	13.00
Others	2.21	2.37	3.21	3.84	1.68	3.11
DK/RF	0.12	0.00	0.21	0.05	0.00	0.12
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 3.11 shows that within all social groups, the percentage of homemakers was highest compared to other categories in the district. The SC category had a higher percentage of the not-working population as students compared to the other social groups. Although most of the employed SC and ST population were casual agricultural labourers (see Table 3.10), the not-working population belonging to the student category was higher among the SC and ST population than the other social groups.

3.3 Socio-Economic Indicators

The PBS estimates for various socio-economic indicators of the Ariyalur 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—irrigated, unirrigated or a combination of both—in the rural and urban areas of Ariyalur district is given in Chart 3.8. The TNHPS PBS definition of land ownership does not include leased in land or other forms of holdings. Data was collected only on the ownership of Agricultural Land. The fourth round of the 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
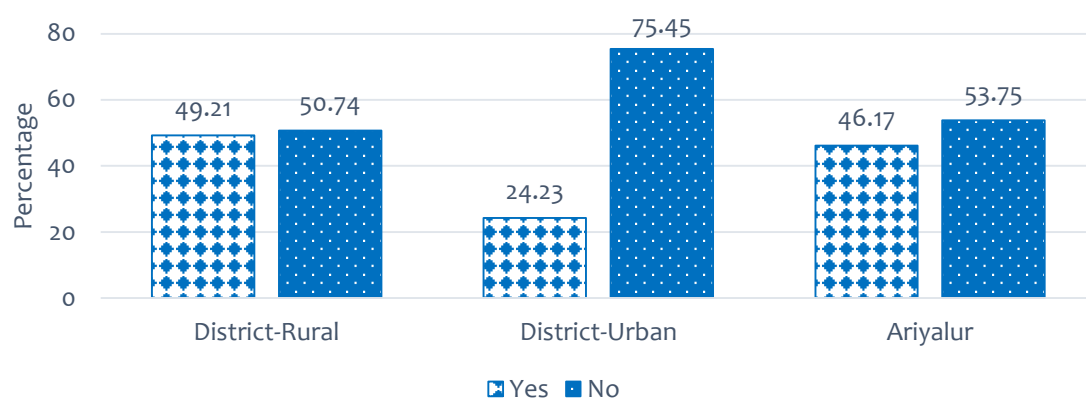
As per the state estimates, the percentage of total households owning agricultural land in Tamil Nadu was 19.41 percent (TNHPS-PBS, 2021). Since Ariyalur is a largely rural and agricultural district, it was ranked first on the percentage of total households owning agricultural land. Chart 3.8 shows that 46.17 percent of the households in the district owned agricultural land. The percentage of households owing agricultural land was higher in rural areas than in urban areas of the district.

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

Type of Agriculture Land	Areas Type		
	Rural	**Urban**	**Ariyalur**
Only Irrigated Agriculture Land	25.67	10.84	24.72
Only Unirrigated Agriculture Land	67.87	85.10	68.97
Both Irrigated and Unirrigated Agriculture Land	6.32	3.83	6.16
DK/RF	0.14	0.23	0.15
Total	**100**	**100**	**100**

Table 3.12 shows that majority of the households that owned agricultural land in the Ariyalur district—68.97 percent—depended on rainfed irrigation alone. Around 24.72 percent of agricultural land-owning households depended on various irrigation sources. Canal irrigation, tank irrigation, tube and open well irrigation were the major sources of irrigation in the district (Department of Economics and Statistics, 2023). Around 67.87 percent of agricultural land-owning households in rural areas and 85.10 percent of agricultural land-owning households in urban areas depended on rainfed irrigation alone. Among the agricultural land-holding households, the households having irrigated agricultural land was lower in the district at 24.72 percent compared to the state estimate at 50.03 percent (TNHPS-PBS, 2021).

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

Agriculture Land Ownership	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Yes	30.21	2.83	52.18	57.35	11.76	46.17
No	69.72	97.17	47.72	42.57	85.59	53.75
DK/RF	0.07	0.00	0.10	0.08	2.66	0.09
Total	100	100	100	100	100	100

Table 3.13 shows that MBC category households at 57.35 percent and BC category households at 52.18 percent were predominant landholders in Ariyalur district compared to other social groups. Only 2.83 percent of ST category households owned agricultural land in the district. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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

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

Size of Agriculture Land (in Hectares)	Areas Type		
	Rural	Urban	Ariyalur
Marginal (0.01 - 0.99)	77.58	70.27	77.12
Small (1 - 1.99)	15.93	16.95	16.00
Semi Medium (2 - 3.99)	5.20	9.30	5.46
Medium (4 - 9.99)	1.07	3.02	1.19
Large (10 and above)	0.22	0.46	0.23
Total	100	100	100

The PBS estimates revealed that 93.12 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands (less than 2 hectares). This estimate was higher than the state level estimate of 89.33 percent. The shares of semi medium, medium and large landholdings were lower than that of the state-which were 7.64 percent, 2.26 percent and 0.77 percent respectively (Table 3.14).

3.3.2 Ownership of Agricultural, Allied and Fishing Assets

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

Chart 3.9 Ownership of Agricultural, Allied and Fishing Assets – Area wise
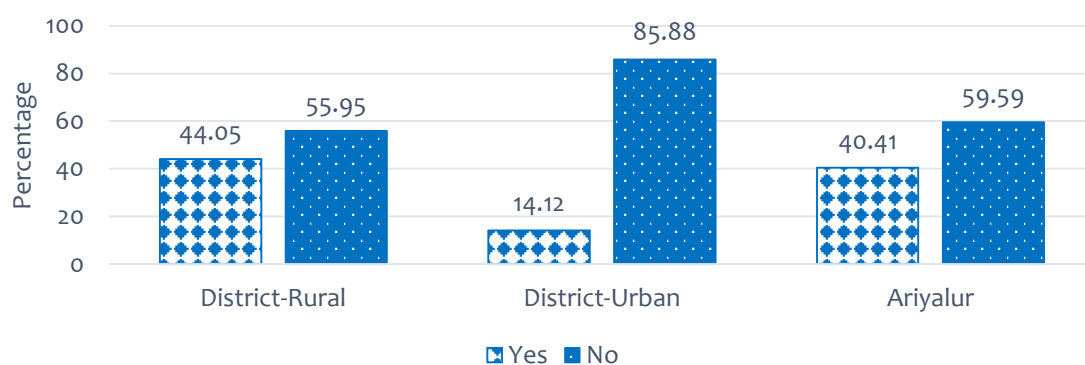
Chart 3.9 shows that 40.41 percent of the households in Ariyalur district owned at least one agricultural, allied agricultural and fishing assets. The estimate was significantly higher than the state estimate of 20.92 percent (TNHPS-PBS, 2021). The proportion of households owning at least one agricultural, allied agricultural and fishing asset was higher in rural areas at 44.05 percent than in urban areas at 14.12 percent of the district.

3.3.3 Presence of Household Assets

This section discusses the percentage of households in Ariyalur district that owned at least one household asset. Household assets include Air Conditioner (AC), refrigerator, two-wheeler, four-wheeler and mobile phones. The 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
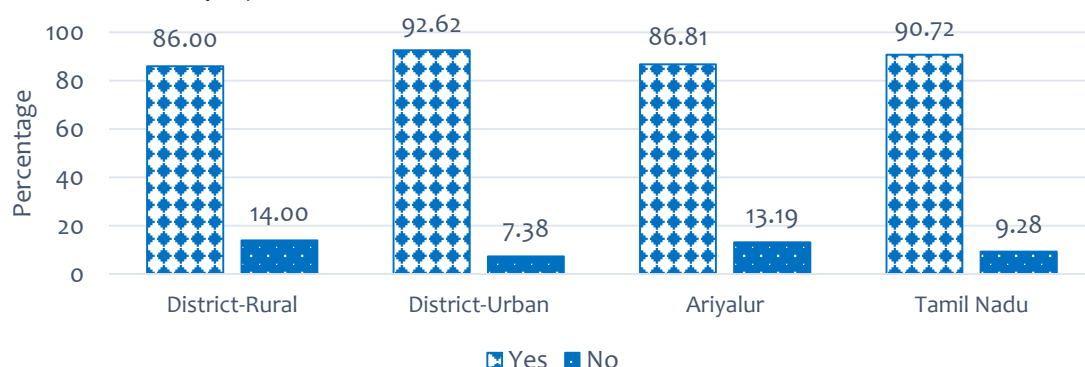
The percentage of the households owning at least one household asset in Ariyalur district was 86.81 percent—lower than the state estimate of 90.72 percent. Within the district, the urban areas had a higher percentage of households owning at least one household asset than the rural areas (Chart 3.10).

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

Presence of Household Assets	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Yes	84.33	72.84	89.50	87.11	97.36	86.81
No	15.67	27.16	10.50	12.89	2.64	13.19
Total	**100**	**100**	**100**	**100**	**100**	**100**

The PBS estimates show that 97.36 percent of General category households owned at least one household asset. The ST category had the lowest percentage of households owning at least one household asset at 72.84 percent compared to other social groups in the district.

3.3.4 Possession of Ration Card

Having a ration card is a key indicator of household socio-economic status, influencing inclusion or exclusion from government welfare schemes like subsidized items from the Public Distribution System and LPG connections.

Chart 3.11 Possession of Ration Card
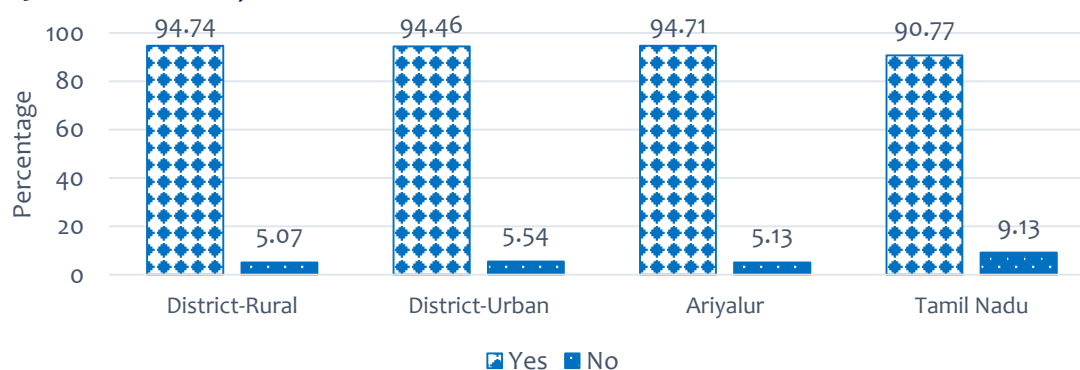
Chart 3.11 shows that the percentage of the households in Ariyalur district that possess ration card was higher than the state estimate. Similar percentage of rural and urban households possessed ration cards.

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	General	Ariyalur
Yes	94.67	87.80	94.59	95.40	97.37	94.71
No	4.81	12.20	5.39	4.60	2.63	5.13
DK/RF	0.52	0.00	0.02	0.00	0.00	0.16
Total	**100**	**100**	**100**	**100**	**100**	**100**

The PBS estimates found that except for the ST category, more than 90 percent of the households across all social groups possessed a ration card. Possession of ration cards was highest among the General category households at 97.37 percent and lowest among ST category households at 87.80 percent.

3.3.5 Type of Ration Card

According to the National Food Security Act (NFSA) 2013, ration cards are broadly categorized into Priority Households (PHH) and Non-Priority Households (NPHH). Households with priority ration card are the target group of various social welfare schemes such as Antyodaya Anna Yojana (AAY) among others.

Chart 3.12 Type of Ration Card at the Household Level
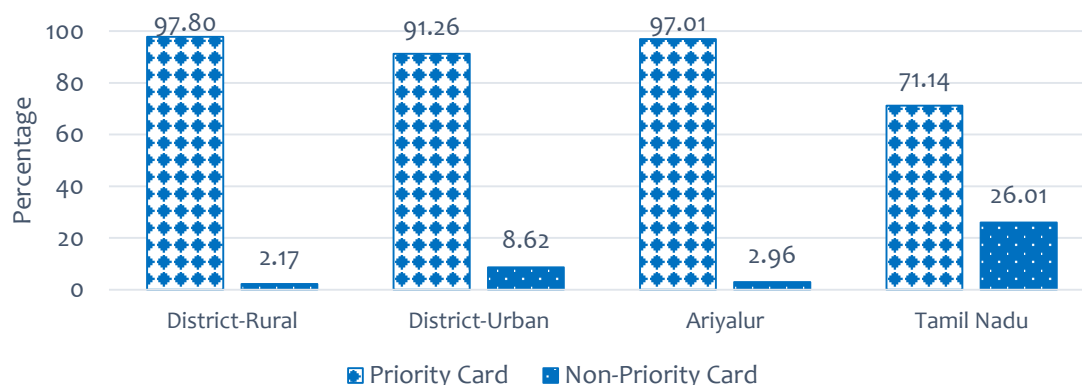
The percentage of households possessing priority ration cards in the district was significantly higher than the state estimates. Higher percentage of rural households possessed priority ration cards than urban households of the district (Chart 3.12).

3.4 Household Income

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

In this section, we analyze the annual income of households in Ariyalur district from various sources in the year 2017-2018. The sources of income include earnings from activities such as agriculture, allied agriculture, salaried work, self-employment, wage labour and other sources. The category 'other sources' consists of pensions, remittances, investments, etc. Table 3.17 shows the mean income of households that depended on various sources of income in Ariyalur district.

Table 3.17 Annual Household Income from Different Sources in the FY 2017-18 – Ariyalur (INR)

Source	Rural	Urban	Ariyalur	Tamil Nadu
Agriculture	35,597	62,248	36,713	61,830
Allied Agriculture	26,030	25,768	26,019	38,576
Salaried	1,45,996	2,66,409	1,76,358	2,29,857
Self Employed	76,703	1,26,113	90,472	1,47,403
Wage Labour	34,684	58,699	36,556	47,734
Other Sources	78,790	1,34,794	84,561	97,646
Income from all Sources	**80,017**	**1,69,382**	**91,180**	**1,42,752**

The mean household income was highest among the households with salaried income and lowest among the households that depended on allied agriculture. Similar patterns are observed in both urban and rural areas. On the whole, the mean annual household income of Ariyalur district was lesser than the state estimates (TNHPS-PBS, 2021). The failure of agriculture and inadequate alternative opportunities were the reasons for the poor economy of the district (Tamil Nadu State Planning Commission, 2017b). Among the then 32 districts, Ariyalur was at twenty-eighth position in terms of mean annual household income (TNHPS-PBS, 2021).

The mean household income in the rural areas of Ariyalur district was lower compared to the rural state estimate of ₹92,765 (TNHPS-PBS, 2021). The mean household income in the urban areas of Ariyalur district was lower compared to the urban state estimate of ₹1,99,629 (TNHPS-PBS, 2021). Although agriculture was predominant in Ariyalur, the mean annual household income from agriculture was comparatively lesser probably due to reasons such as higher proportion of small and marginal landholdings higher percentage of non-irrigated agricultural land and drought during the previous years.

3.4.2 Income Inequality in Ariyalur District

Table 3.18 represents the area wise Gini coefficient values. The Gini coefficient measures the inequality levels where the Gini coefficient value of 0 represents perfect equality and 1—or 100 percent—represents perfect inequality across households. The income inequality in Ariyalur district (0.544) was lower than the state estimate (0.563)[6]. The income inequality across households in urban areas of the district was found to be marginally higher than the rural areas of the district.

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[6] 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	Gini Coefficient
Rural	0.520
Urban	0.562
Ariyalur	0.544
Tamil Nadu	**0.563**

Chart 3.13 Lorenz Curve and Income Inequality
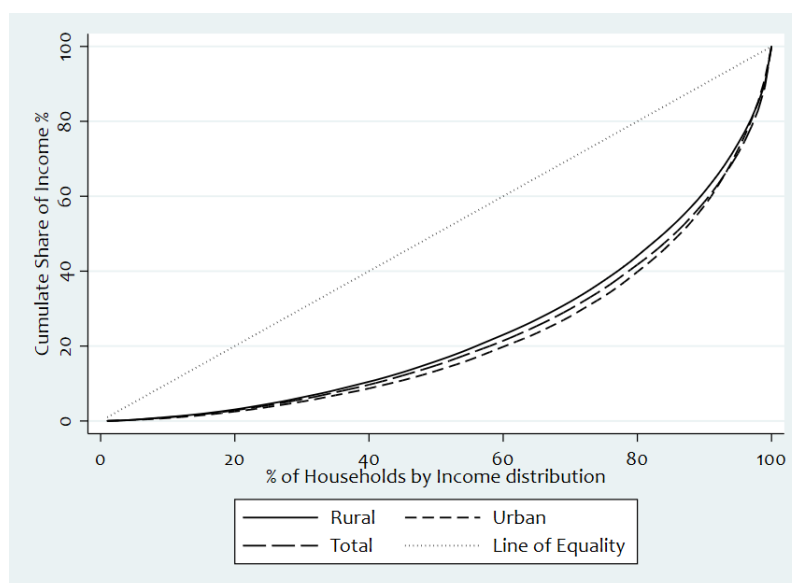
Lorenz curve is a graphical representation of inequality in the distribution of income or wealth of the population. Chart 3.13 represents that the bottom 60 percent of the households have around 20 percent of total income; the bottom 80 percent of the households have around 40 percent of total income and the top 20 percent of households have around 60 percent of total income. Both Chart 3.13 and Table 3.18 show that income inequality was higher in urban areas compared to rural areas of the district. However, the difference is quite small.

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 expectation of change in household income in the following five years. The expectation of the household head on the change in household income in future depends on various factors such as the 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 are capable of capturing the level of optimism—or pessimism— that each household has about its future economic status.

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

Expectation of Change in Household Income	Areas Type			
	Rural	**Urban**	**Ariyalur**	**Tamil Nadu**
Higher	52.14	59.38	53.02	50.06
Lower	14.99	12.89	14.74	8.17
About the same	24.11	22.44	23.91	31.66
DK/RF	8.76	5.29	8.34	10.11
Total	**100**	**100**	**100**	**100**

Most of the households in rural and urban areas expected an increase in the household income in the coming five years, though this number was higher in urban areas. Around 23.91 percent of the households in the Ariyalur district expected their income to remain the same in the future while 14.74 percent expected their income to decrease (Table 3.19).

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**	**Ariyalur**
Higher	53.61	49.62	53.04	52.45	72.61	53.02
Lower	19.53	13.91	11.69	13.65	5.19	14.74
About the same	19.68	30.78	24.29	26.89	22.20	23.91
DK/RF	7.18	5.68	10.98	7.01	0.00	8.34
Total	**100**	**100**	**100**	**100**	**100**	**100**

About 53.61 percent of the SC households in Ariyalur district were expected an increase in their future income, while the percentage of ST households that expected an increase in the income in future was only 49.62 percent. Around 26.89 percent of the MBC households expect their future income to remain the same. A higher percentage of SC households expected their income to decrease in the future compared to other social categories (table 3.20).

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

Chart 3.14 shows the percentages of households residing in their own homes or renting, categorized by area.

Chart 3.14 Ownership Status of the Households' Dwelling/House - Area-wise
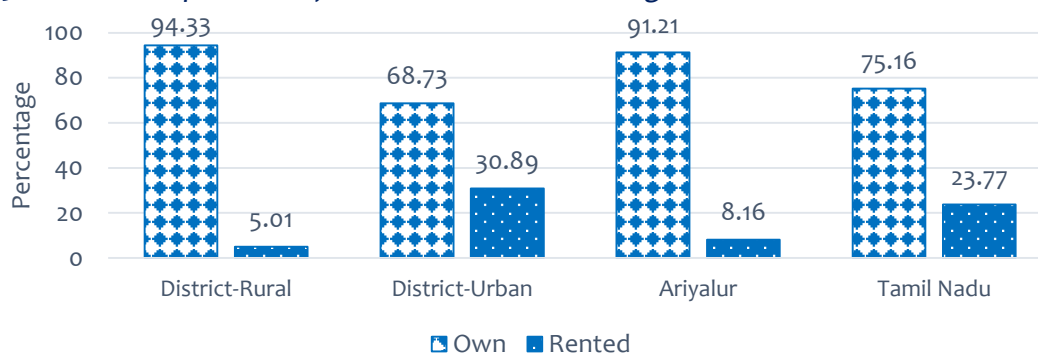
The majority of the households lived in their own houses and less than a tenth of the households lived in rented houses in Ariyalur district. The percentage of households living in their own houses in the district was higher than the state estimates. The district was ranked first among all districts of Tamil Nadu in terms of the percentage of households living in their own houses (TNHPS-PBS, 2021). There existed a wide disparity between the ownership of houses in rural and urban areas. While most of the households lived in their own houses in rural areas, around 30.89% percent of urban households were living in rented houses. Only less than one percent of households were living in 'other' houses such as relative's houses, encroached property, 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	Ariyalur
Own	94.84	94.25	87.17	92.09	68.83	91.21
Rented	4.48	4.47	12.16	7.40	31.17	8.16
Others	0.68	0.60	0.67	0.35	0.00	0.56
DK/RF	0.00	0.68	0.00	0.16	0.00	0.07
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 3.21 shows that the SC households at 94.84 percent, ST at 94.25 percent, MBC at 92.09 percent and BC at 87.17 percent were living in their own houses in the district. On the other hand, only 68.83 percent of the General households had their own houses and the remaining 31.17 percent were staying in rented houses. Still, the estimate on the percentage of General category households living in rented houses is lesser compared to the state estimates for the general category at 36.4 percent (TNHPS-PBS, 2021).

A detailed analysis of ownership of houses shows that out of 91.21 percent of households that owned houses in the Ariyalur district, 16.91 percent of houses were built under a government scheme (See Table 3.22).

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

House Constructed under the Government Scheme	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Yes	29.50	40.11	10.51	10.04	5.30	16.91
No	70.28	59.89	89.15	89.96	94.70	82.92
DK/RF	0.21	0.00	0.34	0.00	0.00	0.17
Total	**100**	**100**	**100**	**100**	**100**	**100**

Among the owned houses, the percentage of houses constructed under a government scheme were higher in Ariyalur district at 16.91 percent compared to the state estimate of 14.12 percent (TNHPS-PBS, 2021). The SC and ST category households had the highest percentage of houses built under a government scheme at 29.50 percent and 40.11 percent respectively.

3.5.2 House Type

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

Chart 3.15 Types of House - Area-wise
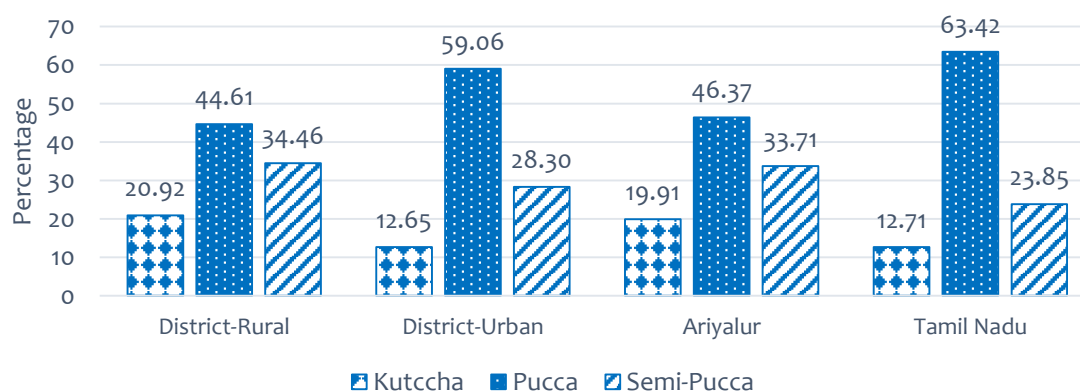
The PBS estimates show that the majority of households—about 46.37 percent—in the district were living in pucca houses. The percentage of the households living in pucca houses were lower than the state estimates of 63.42 percent. The percentage of people living in pucca houses was higher in urban areas compared to the rural areas of the district. While 75.22 percent of state urban households lived in pucca houses (TNHPS-PBS, 2021), only 59.06 percent of urban households in the district lived in pucca houses. The percentage of people living in semi-pucca houses was higher than Kutccha houses, similar to the state estimates.

3.5.3 Primary Drinking Water Source

In this section, we discuss findings of the PBS on the primary source of drinking water of the households in Ariyalur district. The primary sources[7] of water are: bottled water, piped water into dwelling, piped water to yard or plot, public tap or standpipe, tube well or borehole. Other water sources include protected well, unprotected well, rainwater collection, and surface water (tank/pond/river/dam).

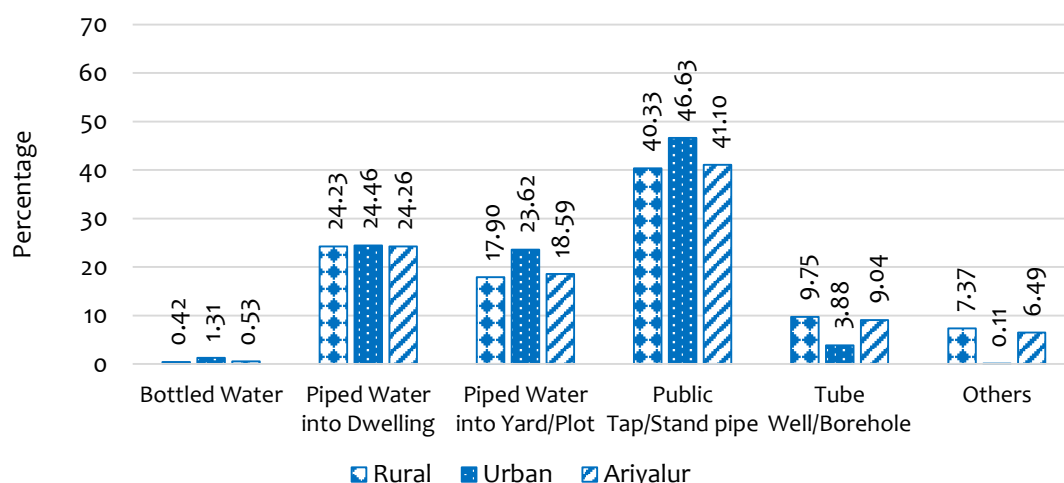*Chart 3.16 Primary Source of Drinking Water of Households*

Chart 3.16 shows that 41.10 percent of the households in the district were using public tap or standpipe as their primary source of drinking water followed by piped water into dwelling, whereas 32.84 percent households in the state were using public tap or standpipe and 32 percent were using piped water into dwelling. The state estimates showed that piped water into the dwelling in urban areas at 37.02 percent and public tap/standpipe in rural areas at 44.51 percent were the primary water sources of households (TNHPS-PBS, 2021). In Ariyalur district, public tap/standpipe were mostly used both in urban and rural households at 46.63 percent and 40.33 percent respectively.

3.5.4 Electricity

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

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[7]   Primary source - Water that is availed for the greater part of the year

Chart 3.17 Comparison of Households with Electricity between Census 2011 and the PBS 2018
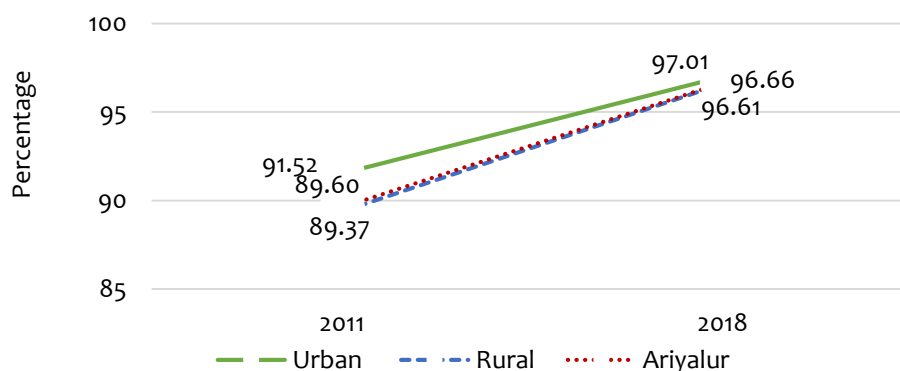
Chart 3.17 shows that rapid electrification had happened in both rural and urban areas of Ariyalur district during the period from 2011 to 2018. Increase in households with electricity was higher in rural areas. Ariyalur district was ranked twenty-third among the then 32 districts in terms of electrification. Around 96.66 percent of the households in the district had domestic electricity connection compared to the state estimate of 97.6 percent (TNHPS-PBS, 2021).

3.5.5 Primary Cooking Fuel

A comparison of the 2011 Census and the 2018 PBS estimates on the primary cooking fuel used by the households in the district is given in Charts 3.18 and 3.19.

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

Chart 3.18 shows that, although the use of LPG as primary cooking fuel in the district had increased tremendously from 20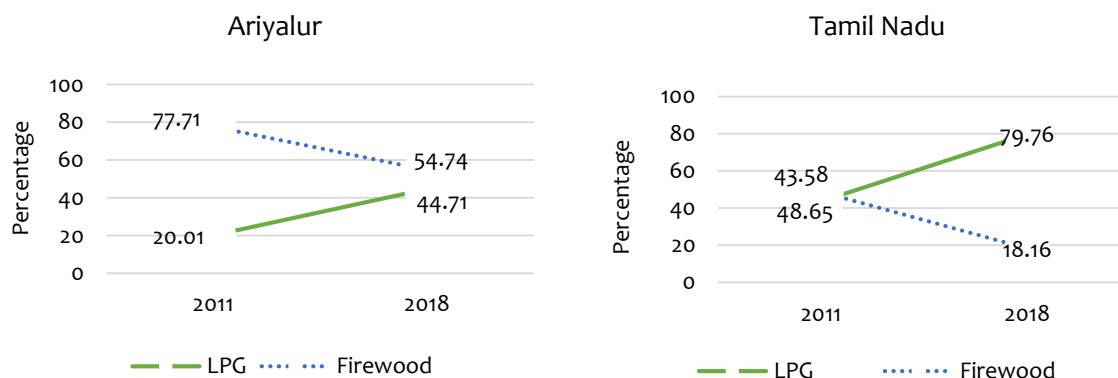.01 percent in 2011 (Census 2011) to 44.71 percent in 2018, firewood was still predominantly used in the district at 54.74 percent. However, the usage of firewood has drastically reduced. Compared to other districts of Tamil Nadu, Ariyalur district – at 54.74 percent -stood second after Pudukkottai district in terms of firewood use and ranked thirty-first in terms of LPG use (TNHPS-PBS, 2021).

Chart 3.19 Comparison of Primary Fuel used for Cooking – Rural and Urban
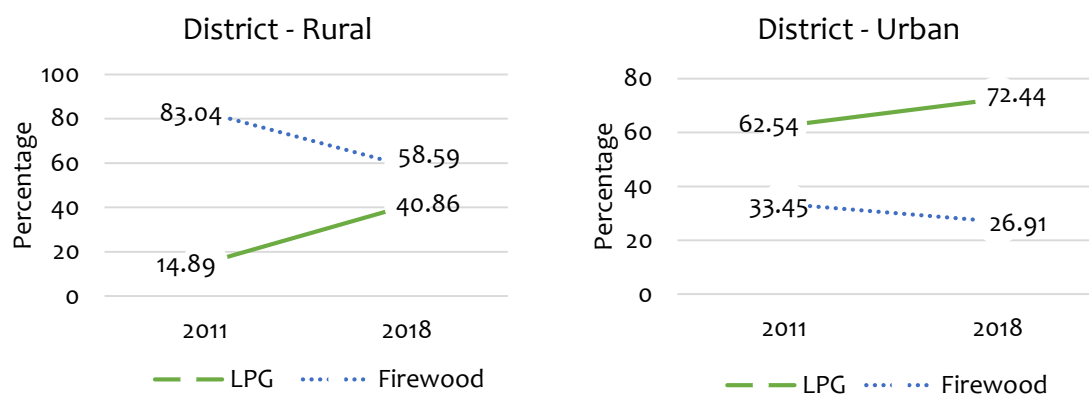

Chart 3.19 indicates that the majority of households in rural areas were still using firewood as primary cooking fuel and the majority of households in urban areas were using LPG as primary cooking fuel. The usage of firewood had reduced drastically and there was a notable increase in LPG usage in both urban and rural areas.

Table 3.23 shows the use of alternative fuels for cooking among households across social groups in the Ariyalur district.

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

Primary Cooking Fuel	Social Group					
	SC	ST	BC	MBC	General	Ariyalur
Firewood	64.40	93.13	43.18	55.58	0.00	54.74
LPG	35.20	6.87	56.22	43.74	100	44.71
Kerosene	0.15	0.00	0.43	0.30	0.00	0.29
Others	0.07	0.00	0.17	0.35	0.00	0.20
DK/RF	0.19	0.00	0.00	0.04	0.00	0.07
Total	**100**	**100**	**100**	**100**	**100**	**100**

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

Table 3.23 shows that the percentage of households using LPG as primary fuel was higher among BC category households at 56.22 percent, followed by MBC category households at 43.74 percent. The majority of ST households at 93.13 percent, SC households at 64.40

percent and MBC households at 55.58 percent used firewood as primary cooking fuel. This is contradictory to the state level estimates across social groups (TNHPS-PBS, 2021). All the thirty-five General category households surveyed during the PBS used LPG as the primary cooking fuel.

3.5.6 Sanitation

The PBS estimates on households with and without a latrine is given below.

Chart 3.20 Presence of Latrine within the Premises of the Household
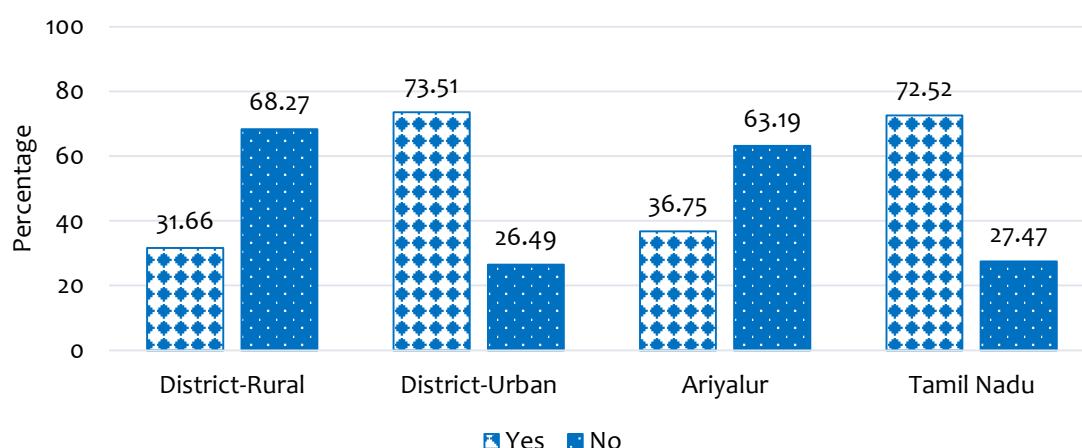
The percentage of households with a latrine within house premises increased from 25.82 percent in 2011 (Census, 2011) to 36.75 percent in 2018 as per the PBS estimates. Ariyalur district was positioned last among the 32 districts in terms of the presence of latrine facilities within the premise of the household (TNHPS-PBS, 2021). The households equipped with latrine facilities in the district were drastically lower than the state estimate of 72.52%. However, the rural-urban disparity in sanitation prevailed as the percentage of rural households with latrine facilities was only 31.66 percent compared to the 73.51 percent in urban areas.

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	Ariyalur
Yes	18.64	31.93	45.25	44.19	100	36.75
No	81.36	68.07	54.57	55.81	0.00	63.19
DK/RF	0.00	0.00	0.17	0.00	0.00	0.06
Total	**100**	**100**	**100**	**100**	**100**	**100**

The PBS estimates show that the majority of BC and MBC households had a latrine within the premises of the household in the district, yet the percentages are drastically lower than the state estimates for the respective categories. Only 18.64% SC and 31.93% ST had a latrine within the household premises, these percentages are also lower compared to the state level estimates for the respective social groups (TNHPS-PBS, 2021). All the thirty-five General category households that were surveyed during the PBS had a latrine within the premises.

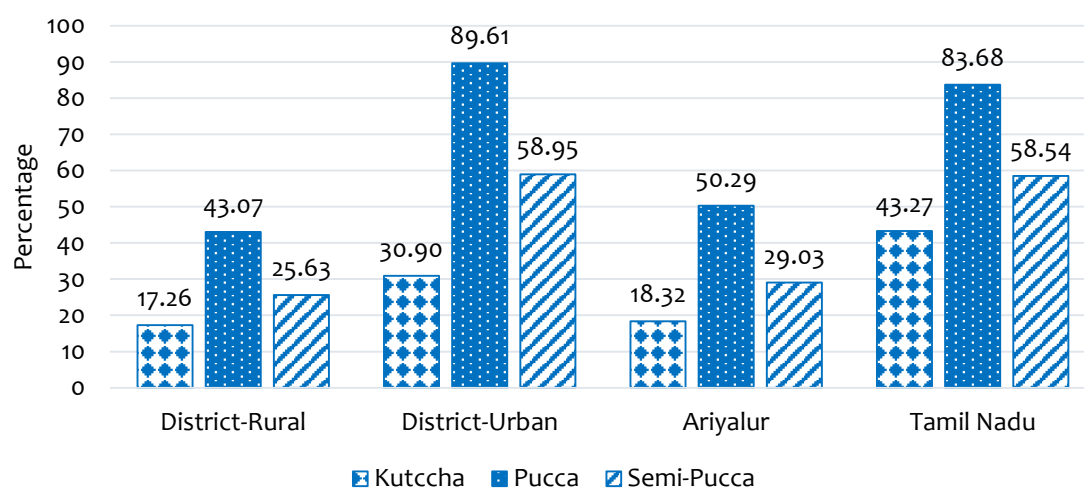*Chart 3.21 Presence of Latrine in the Premises of Different Types of Houses – Area-wise*

Chart 3.21 depicts the presence of latrine in the premises of different types of houses. The majority of the pucca houses had latrine facilities within the premises of the house. The percentage of semi-pucca and kutccha houses with latrine facilities within the premises of the house were lower compared to the pucca houses of the district. The percentage of households with latrine facilities were significantly higher in urban areas compared to rural, across the house types. The estimates of the district were significantly lower than the state estimates, for kutccha, pucca and semi-pucca houses.

The alternative practices followed by the households without latrine within the premises of the house is shown below.

Chart 3.22 Alternate Practices of Defecation by the Households without Latrine
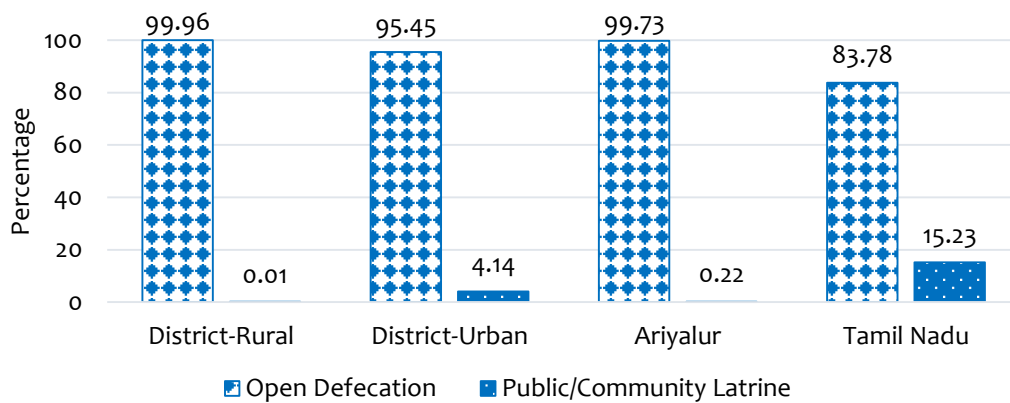
The percentage of total households in the district following open defecation had declined from 80.05 percent in 2011 (Census, 2011) to 63.06 percent in 2018 as per the PBS estimates. Chart 3.22 shows that 99.73 percent of households without a latrine within the premises of the houses in Ariyalur district were following open defecation. The practice of open defecation was higher in rural areas compared to urban areas of the district. The percentage of households without a latrine within the premises of the houses following open defecation was higher than the state estimates. Compared to other districts of Tamil Nadu, Ariyalur district was positioned first in terms of percentage of households following open defecation.

4. Conclusion and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of Ariyalur district was conducted from the sample of 6,354 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.

Ariyalur district in Tamil Nadu, though rich in heritage and culture, faces multifaceted challenges ranging from economic disparities to social inequities. Addressing these issues necessitates targeted public policy interventions. In terms of education, the district's performance is concerning. The district ranked twenty-ninth out of the thirty-two districts in terms of the percentage of the population with formal education. Approximately 16 percent of the population had not received any formal education with a significant portion of them lacking functional literacy. Gender gap in literacy was also observed and the gap was much higher in rural areas. Expanding access to quality education through the establishment of more schools and vocational training centers, along with offering incentives and scholarships to marginalized communities, is crucial for the district's development.

Given Ariyalur's rural and agriculture-centric nature, enhancing employment opportunities for farmers is imperative. This involves providing support in adopting modern farming techniques, facilitating access to credit and subsidies for small farmers, and promoting land consolidation to enhance productivity. The majority of the households that owned agricultural land in the district depended on rainfed irrigation alone. Improving irrigation infrastructure to mitigate the impact of erratic rainfall on agricultural income is essential.

Ariyalur also had a relatively higher percentage of unemployed population. The unemployed population in the urban areas of the Ariyalur district was as high as 5.57 percent. Encouraging entrepreneurship through skill development programs and financial support for start-ups, especially targeting women and youth can play a pivotal role in addressing unemployment. Additionally, promoting diversification of livelihoods in allied agriculture and agriculture-based industries, strengthening rural employment schemes, and ensuring equitable participation of women in the labour force through awareness programs and supportive policies can help the economy of Ariyalur. Since Ariyalur was the fifth poorest district in Tamil Nadu, employment generation initiatives and promoting inclusive financial services and microfinance initiatives to facilitate asset accumulation among marginalized communities is essential.

Ariyalur district also holds the unfortunate distinction of being the lowest-ranked district in the state concerning the availability of latrine facilities within households, with a staggering 63.06% of households resorting to open defecation. However, the percentage of households practicing open defecation has declined from 80.05% in 2011 to 63.06% in 2018, indicating a positive trend. While this improvement underscores the district's potential, it also highlights the considerable distance yet to be covered in achieving adequate sanitation standards.

Immediate attention is also needed to address high firewood usage for cooking. Policies should prioritize improving access to LPG connections in the district.

In conclusion, addressing the challenges faced by the Ariyalur district demands a comprehensive approach encompassing education, employment generation, agricultural reform, poverty alleviation, and infrastructure development. Through coordinated efforts, the district can pave the way for inclusive growth, equitable development, and an improved quality of life for all its residents.

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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.