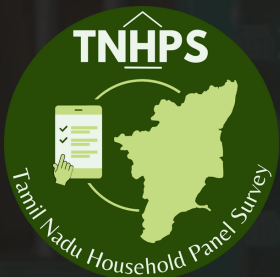


Department of
Economics
& Statistics



Sivaganga



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**

Sivaganga District

February 2024

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Summary of PBS Findings

Demographic Indicators

- Sivaganga had a sample size of 5,354 households, among which 62.40 percent of households were from rural areas and 37.60 percent of households were from urban areas.
- The district had a huge demographic dividend with 69.56 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 11.33 percent.
- Hinduism was followed by around 90 percent of the households in the district.
- The BC and MBC categories were the largest in number, together constituting around 60 percent of the total population in the district and around 20 percent of the households belonged to the SC category and around 15 percent of the households belonged to the DNC category.

Education

- The district had a literacy rate of 83.29 percent, which was lower than the state estimates of 85.40 percent.
- The gender gap in literacy rate was higher in rural areas at 17.34 percent than in urban areas at 6.11 percent of the district.
- Around 80 percent of the population had formal schooling in the district. Among the population with no formal schooling, around 90 percent did not have functional literacy.

Employment

- The unemployment rate was at 3.41 percent in the district, while only 47.92 percent of the total population was employed and 48.59 percent were not in the labour force.
- Around 70 percent of the males were employed and only around 27 percent of the females were employed, which shows the prevailing gender gap in employment.
- Most males who were currently not working were students at 52.90 percent, whereas most females in this category were homemakers at 73.03 percent.

- The majority of the population in the district were casual labourers in the service sector.
- The individuals employed as salaried workers in the private sector were higher in urban areas, while casual labourers in the agriculture sector were higher in rural areas of the district.

Land Ownership and Assets

- Around 39 percent of households own agricultural land, higher among rural households than urban households. DNC category households were predominantly agricultural landowners in the district.
- Households that depend on rain-fed agriculture in the district were 50.29 percent. A higher percentage of rural households at 52.64 percent owned unirrigated land than urban households at 26.18 percent.
- Around 94.14 percent of the agricultural landowners were either marginal or small farmers with less than two hectares of land.
- Around 40 percent of the households owned agriculture, allied or fishing assets in the district, higher among rural households than urban households.
- More than 90 percent of 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 ₹1,04,887 in the district; in the urban areas, it was ₹1,64,168 and in rural areas, it was ₹74,229.
- The mean income from salaried work (₹1,80,239) was the highest.
- The income inequality in the district (0.515) was lower than the state estimate (0.563).
- Around 70 percent of the households in the district expected their income to increase in the next five years. Around 20 percent of the households expected their income to remain the same while one-tenth 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, 79.55 percent of households reside in their own houses. A higher percentage of rural households reside in their own houses compared to urban households in the district.
- Out of the 79.55 percent that owned houses in the district, only 12.51 percent of houses were built under a Government Scheme and SC households were the main beneficiaries of the government housing schemes.
- Less than 60 percent of the households in the district lived in Pucca houses, while around 40 percent lived in Semi-Pucca and less than five percent lived Kutccha houses.

Drinking Water, Electricity, and Cooking Fuel

- Most commonly used primary source of drinking water in the district was piped water into dwelling at around 40 percent.
- Majority of urban households in the district at 44.20 percent used piped water into dwelling and rural households in the district at 39.38 percent used public tap or standpipe as their primary drinking water source.
- Around 97.69 percent of households in the district had domestic electricity connection compared to the state estimate of 97.60 percent.
- Around 69 percent of the households used LPG as primary cooking fuel.
- Around 30 percent of the households in the district use firewood as primary cooking fuel.

Sanitation

- Around three quarters of the households had latrine within the premises of the household. Latrine facilities was higher among urban households than rural households of the district.
- The percentage of total households in the district following open defecation had declined from 55.65 percent in 2011 (Census, 2011) to 25.06 percent in 2018.
- Out of the 26.25 percent households which did not have latrine within the premises of the household, more than 95 percent of the households practiced open defecation.

1. Introduction

1.1 Profile of Sivaganga District

Sivaganga district in Tamil Nadu was formed in the year 1985 from the trifurcation of Ramanathapuram district into Ramanathapuram, Virudhunagar and Sivaganga districts. It is in the southern region of the state, with Pudukkottai in the north, Pudukkottai and Ramanathapuram in the east, Ramanathapuram and Virudhunagar in the south, and Madurai in the west.

According to Census (2011), Sivaganga had a total population of 13.39 lakhs, accounting for approximately 1.86 percent of Tamil Nadu's total population, which was 7.21 crores. The district comprised 3.38 lakh households, with 69.17 percent residing in rural areas. The male population was 49.93 percent, and the female population was 50.07 percent. Sivaganga demonstrated a child-sex ratio of 959.88 compared to the state average of 943.27. Within the social groups, 17.01 percent of the population belonged to the Scheduled Castes, while 0.06 percent belonged to the Scheduled Tribes. The literacy rate in Sivaganga district stood at 79.85 percent, compared to the state's average of 80.09 percent. The male literacy rate was reported to be 87.92 percent, while the female literacy rate was reported to be 71.85 percent, highlighting the need for investment in women's education.

In the fiscal year 2018-19, Sivaganga's Net District Domestic Product (NDDP) was ₹16,12,684 lakhs, ranking at twenty eighth among all districts. The district's per capita NDDP was recorded at ₹1,08,609, ranking it at twenty eighth among districts. Nonetheless, the per capita NDDP of the district was 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 11 percent to its domestic income, while the secondary (industry) and tertiary (service) sectors contribute approximately 23 percent and 66 percent, respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu State Planning Commission (2017a), Sivaganga ranked sixteenth in terms of the Human Development Index with a score of 0.671, a relatively mediocre score. It ranked thirty first in the Gender Inequality Index with a score of 0.114, demanding attention to expanding resources to close the gender divide. In terms of the Child Development Index, the district ranked fifth with a score of 0.706, which reflects well upon the district's investment in the development of the younger generation. Additionally,

Sivaganga ranked twentieth in terms of the Multidimensional Poverty Index with a score of 0.55, considered to be a modest ranking.

Sivaganga district showcases moderate economic performance, with a focus on the service sector, though its per capita income falls below the state average. Noteworthy investments in child development are evident, as reflected in its relatively strong Child Development Index ranking, while efforts to address gender inequality and poverty require further attention for enhanced progress.

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

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

The PBS collected data on a comprehensive set of socio-economic indicators for the period 2018-19 with the results providing district-level estimates for these indicators and informing the sampling design and the associated sampling frame for the first wave of the TNHPS. In the absence of Census 2021, 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 (PSUs)—684 rural PSUs and 792 urban PSUs.

This report analyses data from the PBS for the Sivaganga district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Sivaganga (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Sivaganga district. The sample size for the district was 5,354 households, among which 3,341 households were from rural areas and 2,013 households were from urban areas. The survey covered these blocks: Devakottai, Ilayangudi, Kalayarkoil, Kallal, Kannankudi, Manamadurai, Sakkottai, Singampuneri, Sivaganga, Thiruppuvanam and Tirupathur.

2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 6,522 households in Sivaganga district were selected using a multi-stage stratified sampling design¹. The final sample size was 5,354 households, among which 62.40 percent of households were from rural areas and 37.60 percent of households were from urban areas of the district. The area-wise distribution of total sample as well as the survey response is given in Table 2.1.

Table 2.1 Distribution of Sample Households – Response wise

Response of Households	Area Type					
	Rural		Urban		Sivaganga	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	3,341	81.73	2,013	82.70	5,354	82.09
Non-Response	45	1.10	76	3.12	121	1.86
Non-sample	702	17.17	345	14.17	1047	16.05
Total	4,088	100	2,434	100	6,522	100

Sivaganga district had a lower response rate—willingness of households to participate in the TNHPS-PBS—of 82.09 percent compared to the state response rate of 96.5 percent. About 16.05 percent of the selected samples were removed as they were not considered as households as per the definition used in the PBS². Around 1.86 percent of households were not willing to participate in the survey.

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

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

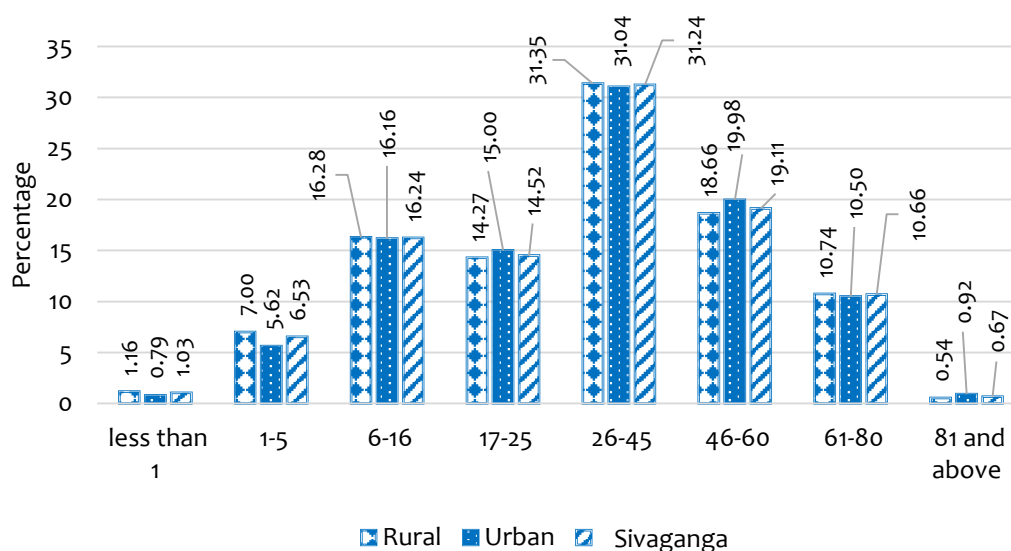
3. Key Findings

3.1 Demographic Indicators

As per the PBS estimates, the average household size³ in the district had reduced from 3.95 in 2011 (Census, 2011) to 3.53 in 2018. Around 48.56 percent of the population in the district were male, and 51.41 percent of the population were female. Around 22.17 percent of the households in Sivaganga district were headed by females, which was higher than the state estimate of 18.93 percent (TNHPS-PBS, 2021).

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

Chart 3.1 Age-wise Distribution of Population



As per the PBS estimates, almost one third of the population in the district belonged to the age group of 26 to 45 years. The population between age 17 to 60 years in the district was 64.87 percent, which was comparatively lower than the state estimate of 66.00 percent (TNHPS-PBS, 2021).

The percentage of currently married population in urban areas was similar to that of currently married population of rural areas in Sivaganga district. The percentage of widowed population was higher in rural areas compared to the urban areas. The percentage of currently married males were similar to that of currently married females in

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

the district. The widowed female population at 16.49 percent was notably higher than the widowed male population at 3.67 percent.

The religion-wise distribution of the households in the district as per the PBS estimates shows that 90.97 percent of the households practiced Hinduism, 5.28 percent practiced Islam and 3.64 percent followed Christianity.

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

Table 3.1 Social Group-wise Distribution of Households

Social Group	Percentage
SC	22.48
ST	0.08
BC	51.52
MBC	8.09
Denotified Communities (DNC)	16.27
General	1.39
DK/RF	0.18
Total	100

As per the PBS estimates, the highest percentage of households in Sivaganga district belonged to the BC category. The percentages of SC and ST households in the district were 22.48 percent and 0.08 percent in 2018 compared to 16.77 percent and 0.05 percent respectively in 2011 (Census, 2011).

It is important to note that the percentage of ST category households of Sivaganga district was only 0.08 percent and only three ST category households were sampled in the district. Hence, the results pertaining to this social group discussed in this report must be interpreted in this context.

3.2 Development Indicators

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

3.2.1 Education

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

Table 3.2 Literacy Rates between Census 2011* and PBS 2018

Gender	Rural		Urban		Sivaganga		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	85.33	86.90	93.65	96.69	87.92	90.35	86.77	90.97
Female	66.19	69.56	84.56	90.58	71.85	76.75	73.40	80.15
Total	75.73	77.83	89.10	93.57	79.85	83.29	80.09	85.40

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

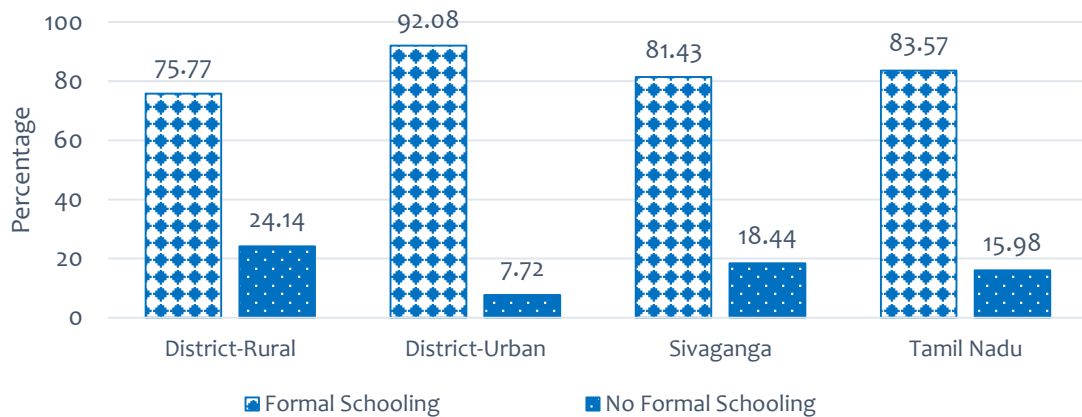
As per Census 2011, the literacy rate in Sivaganga district at 79.85 percent was lower than the state estimate at 80.09 percent. The literacy rate in Sivaganga district had increased to 83.29 percent, which continued to be lower than the state estimate of 85.40 percent. Also, the district registered only a growth of 3.44 percent in literacy rate between 2011 and 2018 while the state had registered a growth rate of 5.27 percent. The difference in literacy rate between the state and the district was 0.24 percent in 2011, which had widened to 2.07 percent in 2018. Both male literacy as well as female literacy in the district had recorded an increase during the period under consideration. The gender gap in literacy rate has declined from 16.07 percent in 2011 to 13.60 percent in 2018. As per the state PBS estimates, Sivaganga was ranked nineteenth among the then 32 districts in terms of literacy rate (TNHPS-PBS, 2021).

The literacy rate in the rural areas of the district was only 75.73 percent in the year 2011 (Census, 2011) which was lesser than the overall literacy rate of the district. According to the PBS estimate, the literacy rate in rural areas of Sivaganga district had increased to 77.83 percent in 2018. The rural male and female literacy rate had also recorded an increase during the period 2011-18. The literacy rate in urban areas of Sivaganga district had also increased from 89.10 percent (Census, 2011) in the year 2011 to 93.57 percent in the year 2018. There had been an increase in both male literacy as well as female literacy in the urban areas of the district during 2011 and 2018. The urban literacy rate continued to be higher than the 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 Sivaganga district. The area-wise education status of population in the district is given in Chart 3.2.

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 81.43 percent of the population aged seven and above in Sivaganga district had attended formal schooling compared to higher state estimates of 83.57 percent. The percentage of population with formal education in urban areas were significantly higher than rural areas of the district.

Chart 3.3 Formal Schooling of the Population – Gender-wise

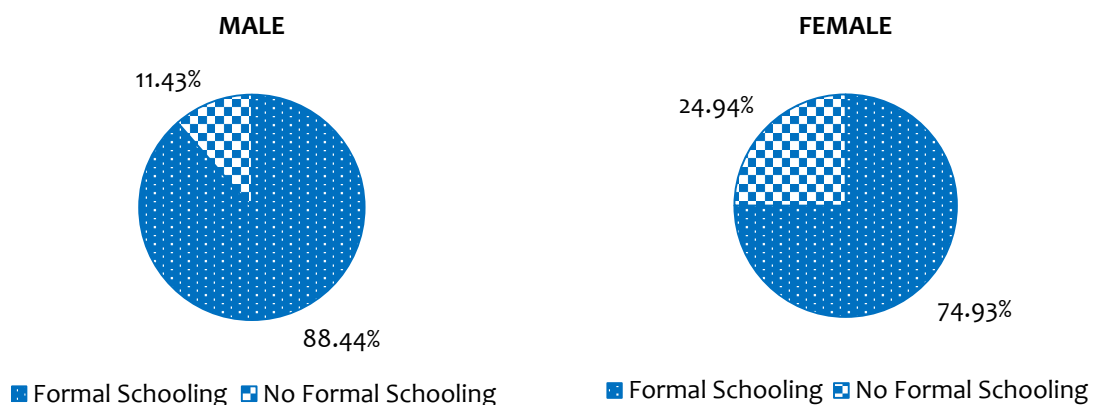


Chart 3.3 shows the percentage of male and female population in Sivaganga district that reported to have had acquired formal education. The percentage of population that acquired formal education was higher among male population compared to female

population. More than one tenth of the male population did not have formal education compared to a quarter of the female population.

A district level analysis on education attainment status had shown greater divergence across various social groups.

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

Education Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Formal Schooling	76.22	75.39	85.78	80.31	74.32	96.77	81.43
No Formal Schooling	23.64	24.61	14.08	19.69	25.61	2.83	18.44
Others and DK/RF	0.15	0.00	0.14	0.00	0.08	0.40	0.13
Total	100	100	100	100	100	100	100

Table 3.3 shows the percentage of the population who had attended formal schooling across various social groups in Sivaganga district. While majority of the general category population, followed by BC and MBC population in the district had formal education, a higher percentage of SC and DNC households did not have formal education. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

The analysis on the percentage of population with formal education does not consider the level of education attained by the population. 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	Sivaganga
Primary (I to V)	25.42	16.06	21.75
Middle (VI to VIII)	24.08	18.84	22.02
High School (IX to X)	22.75	22.80	22.77
Higher Secondary (XI to XII)	15.17	17.03	15.90
Bachelor's degree	7.76	14.38	10.36
Diploma Degree	3.10	5.08	3.88
Post Graduate Degree	1.60	5.60	3.17
Others/DK/RF	0.12	0.21	0.16
Total	100	100	100

Around 82.44 percent of the district's population—aged seven and above, with formal education—was either pursuing or had completed primary or secondary schooling. The population that was either pursuing or had completed tertiary education—such as bachelor's degree, diploma, or post graduate degree and above—was 17.41 percent, which

was slightly lower than the state estimate of 20.02 percent. The percentage of the specified population either pursuing or completed tertiary education is higher in urban areas at 25.06 percent compared to the rural areas with 12.46 percent.

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

Educational Attainment	Gender		
	Male	Female	Sivaganga
Primary (I to V)	20.17	23.47	21.75
Middle (VI to VIII)	22.22	21.80	22.02
High School (IX to X)	23.88	21.56	22.77
Higher Secondary (XI to XII)	14.48	17.45	15.90
Bachelor's degree	10.95	9.73	10.36
Diploma Degree	5.40	2.21	3.88
Post Graduate Degree	2.77	3.59	3.17
Others/DK/RF	0.14	0.18	0.16
Total	100	100	100

Table 3.5 shows that a higher percentage of females at 84.28 percent were either pursuing or had completed primary or secondary schooling compared to males at 80.75 percent. Higher percentage of males at 19.12 percent from the specified population were either pursuing or completed tertiary education compared to females at 15.53 percent. A higher percentage of females were either pursuing or completed post-graduation compared to male population.

To see the social group wise disparity in education attainment in Sivaganga district, the PBS had estimated 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	DNC	General	Sivaganga
Primary (I to V)	24.46	33.33	19.95	22.38	25.21	10.20	21.75
Middle (VI to VIII)	22.26	33.33	20.92	21.43	26.83	12.32	22.02
High School (IX to X)	23.69	33.33	22.33	23.44	22.22	27.60	22.77
Higher Secondary (XI to XII)	15.00	0.00	16.88	16.61	12.92	20.08	15.90
Bachelor's degree	7.84	0.00	11.92	9.83	8.26	13.82	10.36
Diploma Degree	3.93	0.00	4.26	3.02	2.87	4.35	3.88
Post Graduate Degree	2.62	0.00	3.59	3.29	1.59	11.23	3.17
Others/DK/RF	0.19	0.00	0.16	0.00	0.10	0.41	0.16
Total	100	100	100	100	100	100	100

Table 3.6 shows that higher percentage of population from all social groups were either pursuing or completed primary, middle, or high school. The percentage of population either pursuing or completed tertiary education was higher among General population at 29.40 percent, followed by BC at 19.77 percent. The SC population at 14.39 percent and DNC population at 12.72 percent had lower percentage in terms of either pursuing or completed tertiary education. The proportion of population that was either pursuing or had completed tertiary education within all social groups in the district was lower than the corresponding state level estimates (TNHPS-PBS, 2021). The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

About 18.44 percent of the population had not received formal education in Sivaganga 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	Sivaganga
Yes	8.54	19.23	10.09
No	90.47	80.31	88.99
DK/RF	0.99	0.46	0.92
Total	100	100	100

Table 3.7 shows the literacy status of the population with no formal schooling. Only 10.09 percent of the population without formal schooling had functional literacy. The functional literacy rate of specified population group in urban areas was significantly higher than 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	DNC	General	Sivaganga
Yes	11.74	0.00	9.95	8.41	8.69	52.03	10.09
No	87.33	100	89.30	91.59	89.74	47.97	88.99
DK/RF	0.93	0.00	0.75	0.00	1.58	0.00	0.92
Total	100	100	100	100	100	100	100

Table 3.8 shows the literacy status of population with no formal schooling, across various social group categories. Functional literacy was relatively higher among SC category and lower among MBC category. None of the ST respondents without formal schooling surveyed in the district possessed functional literacy. There were only seven General Category respondents without formal schooling surveyed, therefore the results in the table should be interpreted accordingly.

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, the unemployment rate at the district level and compares the findings with state estimates. In the PBS, the population of 14 years and above is classified as employed, unemployed and not in the labour force⁴.

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

- (i) People who are self-employed in agriculture,
- (ii) People who are self-employed in allied agricultural activities,
- (iii) People who are self-employed in non-agricultural activities,
- (iv) People who worked as casual labourer in agriculture,
- (v) People who worked as casual labourer in industry,
- (vi) People who worked as casual labourer in the service sector,
- (vii) People who worked as casual labour 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.

Unemployed group was defined as the population of 14 years and above, who did not work but was seeking and/or available for work.

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

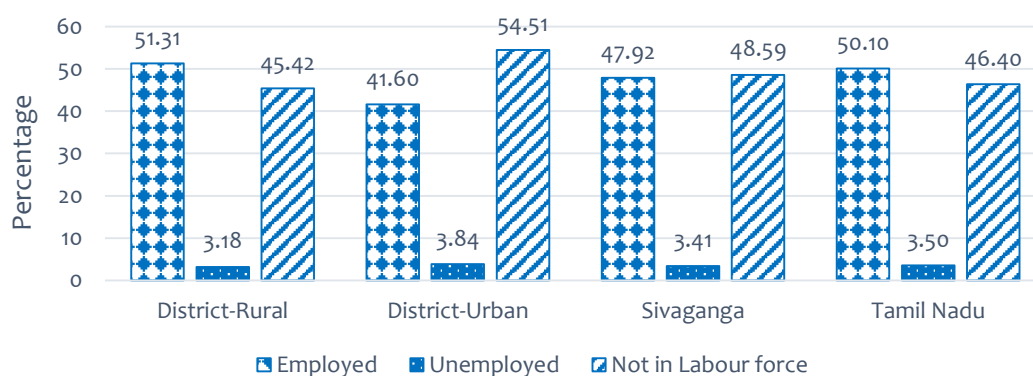
Percentage of population not in the labour force = (Number of persons 14 years and above not in workforce/Total population of the district 14 years and above) *100

The category not in the labour force consists of following:

People who attended educational institutions,

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

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



The overall percentage of employed population—14 years and above—in the district was lower than the state estimates. 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 similar to the state estimates. The unemployment status in rural areas of the district at 3.18 percent was lower than the state estimate of 3.60 percent, whereas the district urban unemployment status at 3.84 percent was higher than the state estimate of 3.30 percent (TNHPS-PBS, 2021). Sivaganga district was positioned twenty second among all districts in Tamil Nadu in terms of employed population and was nineteenth in terms of the unemployment status.

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

Chart 3.5 Employment Status of the Population (Age 14 years and above) – Gender-wise

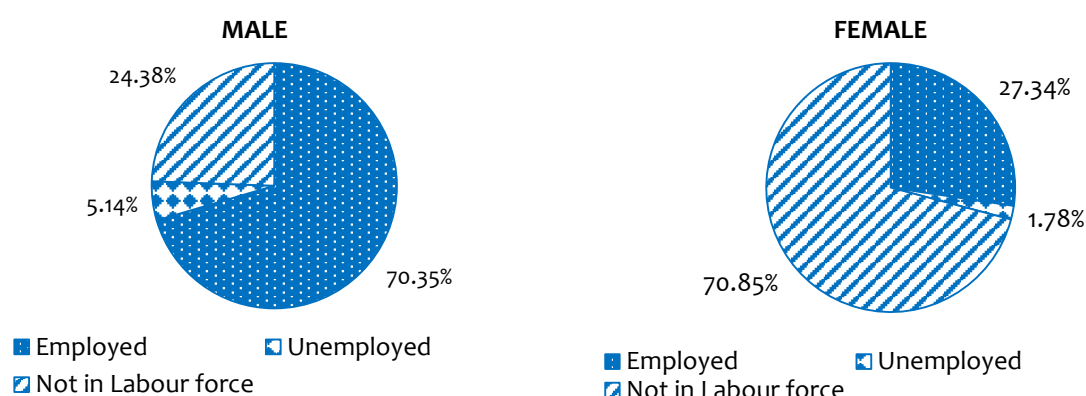


Chart 3.5 shows the gender wise employment status of the population aged 14 years and above. While 70.35 percent of the male population was employed, only 27.34 percent of the female population was employed. Decreased female labour force participation has been well documented at the national level (Das 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 lesser than the state estimate of 29.96 percent (TNHPS-PBS, 2021). Around 70.85 percent of the female population was not in workforce, among them majority of them at 73.03 percent was associated with attending domestic duties as homemaker (refer Chart 3.7). Unemployment status was higher among males compared to that of female population. Sivaganga district was positioned twenty third in terms of female work participation and positioned twenty fourth in terms of female unemployment status.

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

Work Type	Area Type		
	Rural	Urban	Sivaganga
Self Employed Agriculture	10.85	1.96	8.16
Self Employed Non-Agriculture	6.84	24.88	12.31
Self Employed Allied Agriculture	2.77	0.66	2.13
Casual Labourer Agriculture	22.40	0.71	15.83
Casual Labourer Industry	9.41	17.70	11.92
Casual Labourer Service	18.78	10.76	16.35
Casual Labourer (Others)	6.20	5.14	5.88
Salaried Worker Government	2.65	11.05	5.20
Salaried Worker Private	8.52	26.12	13.86
Multiple Occupation	11.16	0.39	7.89
Other	0.34	0.48	0.39
DK/RF	0.08	0.16	0.10
Total	100	100	100

The type of work that the population aged 14 and above is engaged is given in Table 3.9. Highest proportion of the working population in the district were casual labourers in service sector at 16.35 percent, followed by casual labourers in agriculture sector at 15.83 percent. The highest proportion of the working population in the state was salaried private workers at 21.82 percent (TNHPS-PBS, 2021). Casual labourers in agriculture sector were predominant in rural areas of the district at 22.40 percent and salaried workers in private sector were predominant in urban areas at 26.12 percent.

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	DNC	General	Sivaganga
Self Employed Agriculture	4.29	0.00	11.09	8.64	6.11	0.00	8.16
Self Employed Non-Agriculture	4.22	0.00	18.22	17.01	4.93	22.82	12.31
Self Employed Allied Agriculture	1.89	0.00	2.52	0.52	2.34	0.00	2.13
Casual Labourer Agriculture	26.35	19.84	8.37	10.96	24.19	0.00	15.83
Casual Labourer Industry	9.58	59.78	11.80	7.85	17.05	12.58	11.92
Casual Labourer Service	26.76	0.00	13.53	20.95	8.30	10.67	16.35
Casual Labourer (Others)	5.73	0.00	7.43	5.21	2.36	6.27	5.88
Salaried Worker Government	4.76	0.00	5.72	6.93	3.07	17.35	5.20
Salaried Worker Private	9.35	20.38	17.77	10.12	10.82	21.31	13.86
Multiple Occupation	6.85	0.00	2.82	11.36	20.84	3.99	7.89
Other	0.08	0.00	0.61	0.33	0.00	5.01	0.39
DK/RF	0.14	0.00	0.13	0.11	0.00	0.00	0.10
Total	100	100	100	100	100	100	100

The state estimates show that majority of the population from SC, ST, MBC, and DNC category were casual labourers in agricultural sector and higher percentage of BC and general population belonged to salaried workers in the private sector (TNHPS-PBS, 2021). The district estimates in Table 3.10 show that majority of the population from SC and MBC category were engaged as casual labourers in service sector. Higher percentage of BC and General population were self-employed in non-agriculture. A quarter of the DNC population was engaged in casual labour in agriculture sector. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

Chart 3.6 Composition of the population not in the labour force - Area-wise

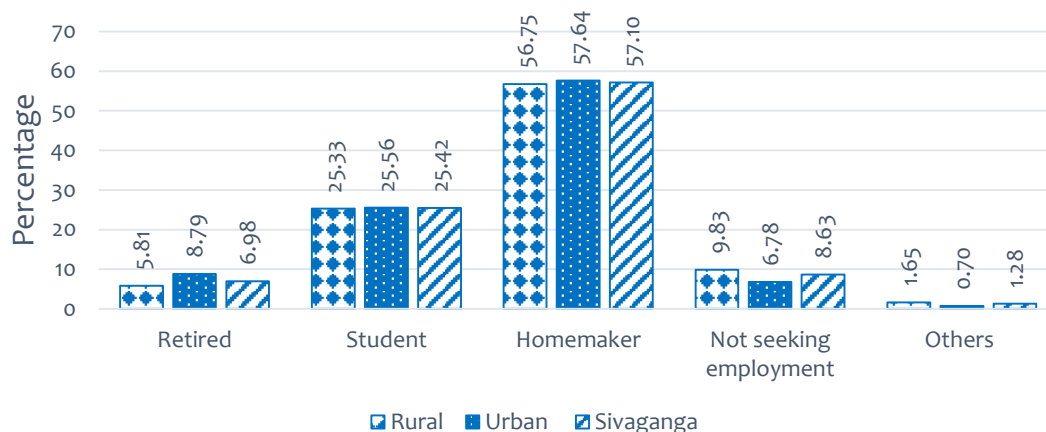
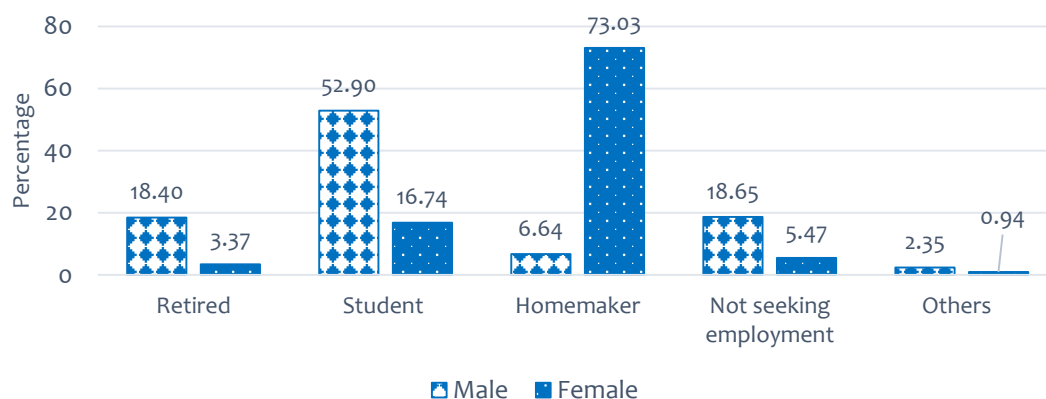


Chart 3.6 shows that similar to the trend at the state level (TNHPS-PBS, 2021), more than half the population that was not in the labour force in the district comprised homemakers involved in unpaid domestic duties of the household, followed by students. The proportions of the population that were not seeking employment were higher in rural areas than urban areas, whereas the percentages of retired people was higher in urban areas than rural areas. The proportion of students and homemakers to the total population was similar in both rural and urban areas of the district.

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. While Chart 3.3 represents the lower female involvement in formal education, Chart 3.7 shows the staggeringly lower female involvement in higher education compared to men as only 16.74 percent of the female not-in-labour-force population was 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	Sivaganga
Retired	6.26	0.00	7.53	5.10	5.42	19.41	6.98
Student	28.52	0.00	24.33	26.26	25.76	20.68	25.42
Homemaker	54.95	100	57.89	61.50	55.07	48.36	57.10
Not seeking employment	8.27	0.00	8.29	4.87	12.49	10.73	8.63
Others	1.66	0.00	1.38	0.32	1.12	0.00	1.28
DK/RF	0.33	0.00	0.59	1.94	0.13	0.81	0.59
Total	100	100	100	100	100	100	100

Table 3.11 shows that within all social groups, the percentage of homemakers was the largest compared to other categories in the district. The SC category had a higher percentage of not-working population as students compared to the other social groups. Although most of the employed SC population were casual labourers in service sector (see Table 3.10), the not-working population belonging to student category were higher among SC population than the other social groups, probably suggesting increasing awareness on the importance of education. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

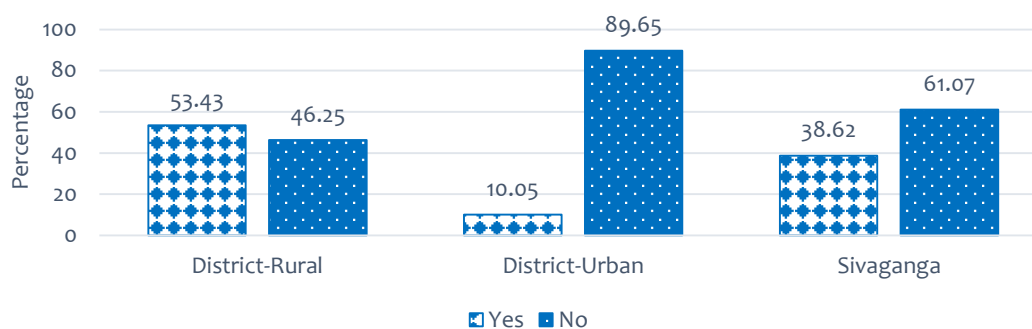
3.3 Socio-Economic Indicators

The PBS estimates for various socio-economic indicators of Sivaganga 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, namely irrigated, unirrigated or combination of both, in the rural and urban areas of Sivaganga district are 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 only on the ownership of agricultural land. 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



As per the state estimates, the percentage of total households owning agricultural land in Tamil Nadu was 19.41 percent. Since Sivaganga is largely rural and agricultural district, it was ranked fourth on the percentage of total households owning agricultural land just below Ariyalur district at 46.17 percent, Perambalur at 42.41 percent and Dharmapuri at 39.19 percent (TNHPS-PBS, 2021). Chart 3.13 shows that while 38.62 percent of the households in Sivaganga district owned agricultural land, 61.07 percent of the households in the district did not own agricultural land. The percentage of households owing agricultural land is significantly higher in rural areas than urban areas of the district.

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

Type of Agriculture Land	Area Type		
	Rural	Urban	Sivaganga
Only Irrigated Agriculture Land	40.47	58.59	42.08
Only Unirrigated Agriculture Land	52.64	26.18	50.29
Both Irrigated and Unirrigated Agriculture Land	6.55	13.31	7.15
DK/RF	0.35	1.92	0.49
Total	100	100	100

Table 3.12 shows that, majority of the households who own agricultural land in Sivaganga district—about 50.29 percent—depend on rainfed agriculture alone. Around 42.08 percent of agricultural land-owning households depended on various irrigation sources. Tanks, tube wells and other wells were the main sources of irrigation, and nearly 65 percent of irrigation was covered by tanks (Tamil Nadu State Planning Commission, 2017b). Around 52.64 percent of agricultural land-owning households in rural areas and 26.18 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 42.08 percent compared to the state estimate of 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	DNC	General	Sivaganga
Yes	43.29	0.00	33.12	40.93	51.09	14.62	38.62
No	56.47	100	66.43	58.73	48.91	85.38	61.07
DK/RF	0.25	0.00	0.45	0.34	0.00	0.00	0.31
Total	100	100	100	100	100	100	100

Table 3.13 shows the analysis of the social group wise ownership of agricultural land at the household level. DNC category households at 51.09 percent and SC category households at 43.29 percent were predominant landholders in Sivaganga district compared to other social groups. Only 14.62 percent of the General 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 agriculture land, the PBS classified the land owned by the households into marginal, small, semi-medium, medium, and large. The percentage of households (that owned agricultural land) under each size category is given in Table 3.14.

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

Size of Agriculture Land (in Hectares)	Area Type		
	Rural	Urban	Sivaganga
Marginal (0.01 - 0.99)	84.69	68.15	83.32
Small (1 - 1.99)	10.63	12.92	10.82
Semi Medium (2 - 3.99)	3.59	12.38	4.32
Medium (4 - 9.99)	0.08	6.54	0.61
Large (10 and above)	1.01	0.00	0.93
Total	100	100	100

Table 3.14 shows that 94.14 percent of the agricultural land-owning households in the district possessed marginal or small agricultural lands—less than two hectares. This estimate is higher than the state level estimate of 89.33 percent (TNHPS-PBS, 2021). The shares of semi-medium and medium landholdings were lower and large landholdings were higher than that of the state at 7.64 percent, 2.26 percent and 0.77 percent respectively

3.3.2 Ownership of Agricultural, Allied agricultural and Fishing Assets

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

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

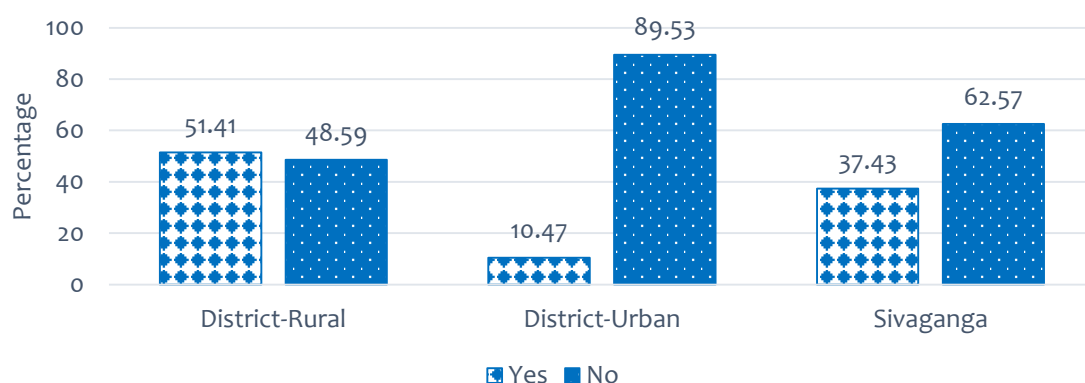
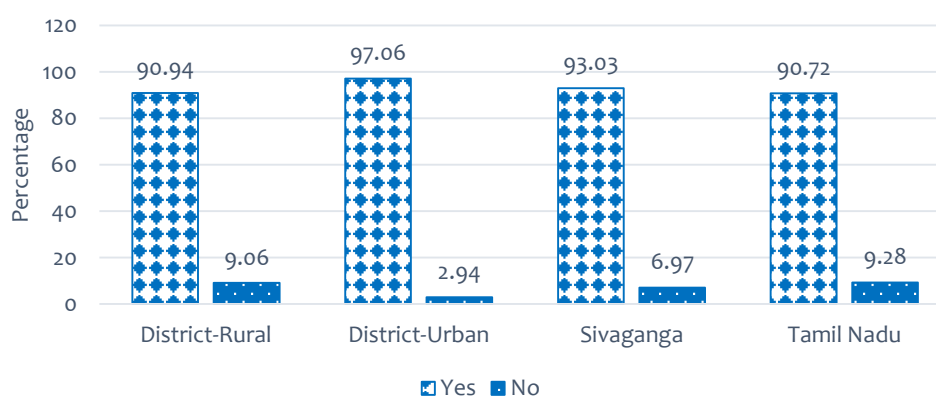


Chart 3.9 shows that 37.43 percent of the households in Sivaganga district owned at least one agricultural, allied agricultural and fishing assets. The estimate was higher than the state estimate of 20.92 percent (TNHPS-PBS, 2021). The proportion of households owning at least one agricultural, allied agricultural and fishing assets were higher in rural areas of the district at 51.41 percent than urban areas at 10.47 percent.

3.3.3 Presence of Household Assets

Chart 3.10 shows the percentage of households in Sivaganga district that own 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 was predominantly owned 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 households owning at least one household asset in Sivaganga district at 93.03 percent was higher than the state estimate of 90.72 percent. Within the district, the urban areas had higher percentage of households owning at least one household asset than the rural areas.

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

Presence of Household Assets	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Yes	90.89	100	94.21	95.01	90.65	98.83	93.03
No	9.11	0.00	5.79	4.99	9.35	1.17	6.97
Total	100	100	100	100	100	100	100

The social group wise ownership of household assets in Sivaganga district is given in Table 3.15. The estimates show that 98.83 percent of General Category households owned at least one household asset. DNC category had the lowest percentage of households owning at least one household asset at about 90.65 percent compared to other social groups in the district. Around 9.35 percent the DNC households did not even own a mobile phone. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

3.3.4 Possession of Ration Card

Possession of a ration card can be treated as a determinant of socio-economic status at the household level. It plays a vital role in inclusion—or exclusion—of households from the government welfare schemes such as the availability of subsidized items from public distribution system and subsidised LPG connection, for instance.

Chart 3.11 Possession of Ration Card

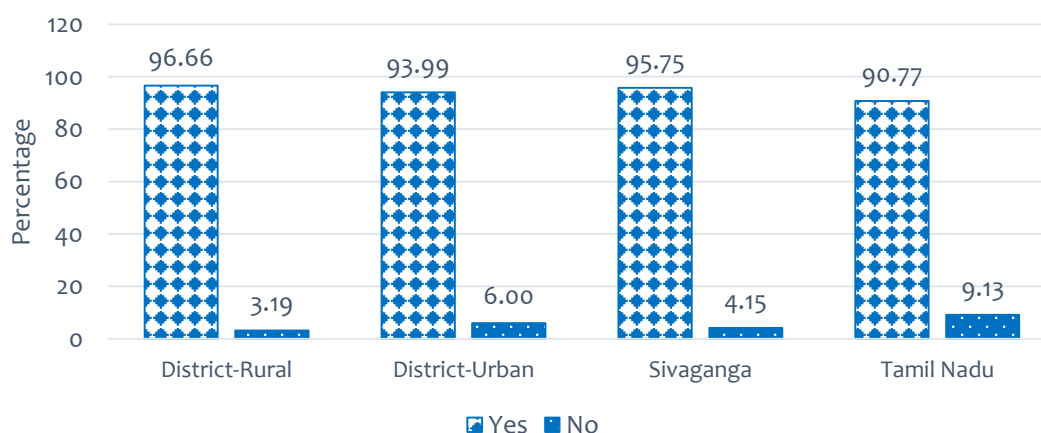


Chart 3.11 show that the percentage of households in Sivaganga district that possess ration card was higher than the state estimate. Higher percentage of rural households possessed ration cards compared to the urban households.

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

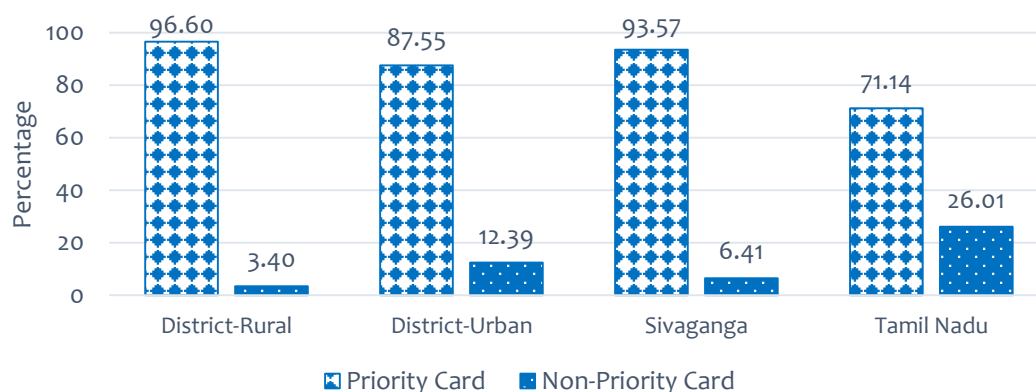
Possession of Ration Card	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Yes	96.56	50.52	96.17	95.76	93.83	95.29	95.75
No	3.42	49.48	3.81	4.24	5.64	4.71	4.15
DK/RF	0.01	0.00	0.02	0.00	0.52	0.00	0.10
Total	100	100	100	100	100	100	100

The social group-wise possession of ration cards in Sivaganga district is given in Table 3.16. Possession of ration card was highest among the SC category households at 96.56 percent and lowest among DNC category households at 93.83 percent. The results for the ST 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 National Food Security Act (NFSA) 2013, ration cards are broadly categorized into Priority Households (PHH) and Non-Priority Households (NPHH). Households with priority ration card are the target group of various social welfare schemes such as Antyodaya Anna Yojana (AAY) among others. The details regarding the percentage of households possessing priority and non-priority ration cards in rural and urban areas of Sivaganga district are given in Chart 3.12.

Chart 3.12 Type of Ration Card at the Household Level



The percentage of households possessing priority ration cards in the district was higher than the state estimates. Higher percentage of rural households possessed priority ration cards than urban households of the district.

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 Sivaganga district from various sources for the year 2017-2018. The sources of income include activities such as agriculture, allied agriculture, salaried work, self-employed, wage labour and other sources. The category 'other sources' consists of other 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 Sivaganga district.

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

Source	Rural	Urban	Sivaganga	Tamil Nadu
Agriculture	46,211	1,10,619	53,043	61,830
Allied Agriculture	39,083	1,48,381	43,978	38,576
Salaried	1,25,272	2,20,785	1,80,239	2,29,857
Self Employed	87,651	1,40,255	1,17,844	1,47,403
Wage Labour	36,821	53,199	40,329	47,734
Other Sources	62,568	1,27,622	83,655	97,646
Income from all Sources	74,229	1,64,168	1,04,887	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 and allied agricultural activities. Overall, the mean annual household income of the district was 26.53 percent lesser than the state estimate. Among the then 32 districts, Sivaganga was positioned twenty second in terms of mean annual household income (TNHPS-PBS, 2021).

In rural areas of Sivaganga district, the mean household income was lower compared to the rural state estimate of ₹92,765 (TNHPS-PBS, 2021). The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that engaged as wage labour for their main source of income.

In urban areas of Sivaganga district, the mean household income was lower compared to the urban state estimate of ₹1,99,629 (TNHPS-PBS, 2021). The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that engaged as wage labour for the source of income.

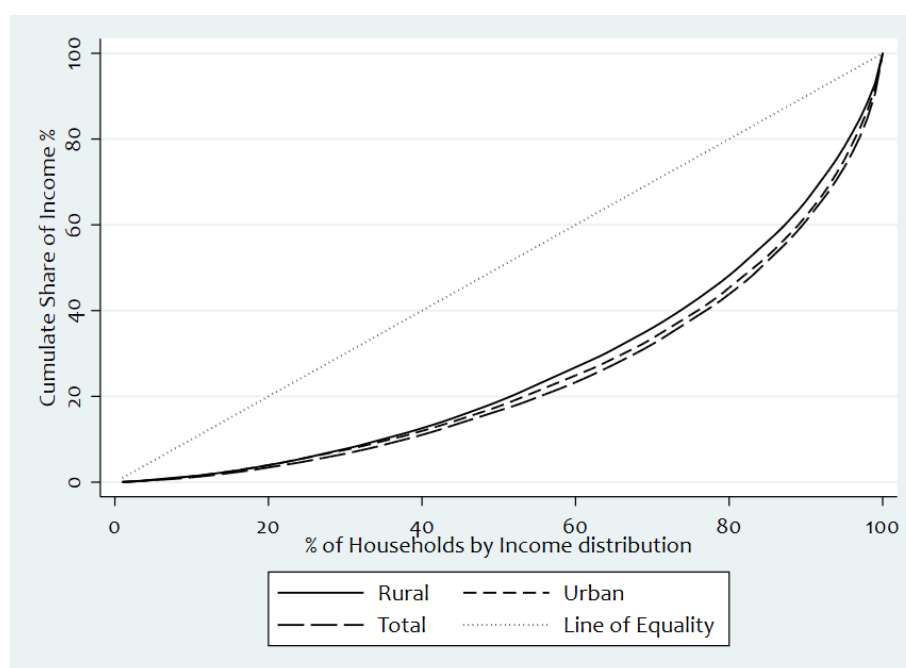
3.4.2 Income Inequality in Sivaganga District

Table 3.18 represents the area-wise Gini coefficient values. 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 Sivaganga district (0.515) was lower than the state estimate (0.563)⁵. The income inequality across households in the urban areas in the district was found to be higher than the rural areas.

Table 3.18 Gini Coefficient of Income Inequality- Area-wise

Area	Gini Coefficient
Rural	0.468
Urban	0.495
Sivaganga	0.515
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 80 percent of households has around 40 percent of total income and the top 20 percent of households has around

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).

60 percent of total income. Both Chart 3.13 and Table 3.18 show that income inequality was comparatively higher in urban areas than rural areas of the district.

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

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

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

Expectation of Change in Income	Area Type			
	Rural	Urban	Sivaganga	Tamil Nadu
Higher	62.76	76.21	67.35	50.06
Lower	12.28	8.67	11.05	8.17
About the same	22.01	13.17	18.99	31.66
DK/RF	2.96	1.95	2.61	10.11
Total	100	100	100	100

Majority of the households in both rural areas at 62.76 percent and urban areas at 76.21 percent of the district expected that their income would increase in the next five years from 2018. Higher percentage of rural households at 12.28 percent expected that their income would decline in future compared to the urban households at 8.67 percent that expected a decline in future income. Similarly, higher percentage of rural households at 22.01 percent expected that their future income would remain the same compared to the urban households at 13.17 percent.

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

Expectation of Change in Income	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Higher	62.34	50.52	73.77	64.63	55.41	68.27	67.35
Lower	11.17	49.48	9.52	11.26	15.82	7.99	11.05
About the same	25.00	0.00	14.04	23.02	23.86	22.90	18.99
DK/RF	1.49	0.00	2.68	1.09	4.91	0.84	2.61
Total	100	100	100	100	100	100	100

Table 3.20 shows that the percentage of households expecting their income to increase in future to be higher was highest among BC category at 73.77 percent, followed by General category at 68.27 percent, compared to other social groups. On the other hand, none of the three ST households surveyed expected their income to remain the same in the near future. Whereas roughly 20 percent of SC, MBC, DNC, and General category households expected their income would remain the same in the near future. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

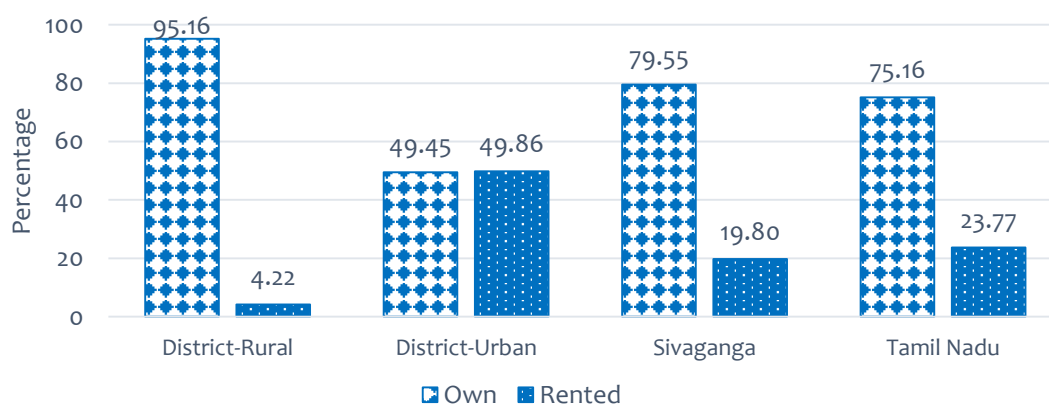
3.5 Basic Infrastructure

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 percentage of households that live in their own house or stay at rented a house are given in Chart 3.14.

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



Around 79.55 percent of the households live in their own houses and less than a quarter of the households live in rented houses in Sivaganga district. The percentage of households living in their own houses in the district is higher than the state estimate. The district was ranked fifteenth among all districts of Tamil Nadu in terms of 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 in rural areas live in their own houses, around half the urban households were relying on rented houses for their stay. Less than one percent of households was living in other houses such as relative's house, encroachments etc. This data does not capture the ownership of a house in a different geographical location.

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

Ownership Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Own	89.85	24.92	72.37	78.47	91.68	52.21	79.55
Rented	9.64	75.08	26.96	21.53	7.18	47.79	19.80
Others	0.50	0.00	0.61	0.00	1.14	0.00	0.61
DK/RF	0.01	0.00	0.06	0.00	0.00	0.00	0.04
Total	100	100	100	100	100	100	100

Table 3.21 shows the social group wise house ownership status of the households. In Sivaganga district, a higher percentage of DNC households at 91.68 percent, followed by SC households at 89.85 percent, lived in their own houses. The district estimates on the percentage of General category households living in their own houses was lesser compared to the state estimate for General category households which was 62.55 percent (TNHPS-PBS, 2021). This is probably reflective of more number of General category households living in urban areas in the rest of the state. The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

A detailed analysis of ownership of houses shows that out of 79.55 percent households that possessed own houses in the district, 12.51 percent of houses was 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	DNC	General	Sivaganga
Yes	30.76	0.00	5.53	7.02	8.15	2.31	12.51
No	68.89	100	94.43	92.98	91.85	97.69	87.38
DK/RF	0.35	0.00	0.05	0.00	0.00	0.00	0.11
Total	100	100	100	100	100	100	100

Among the owned houses, the percentage of houses constructed under a government scheme was lower in Sivaganga district at 12.51 percent compared to the state estimate of 14 percent (TNHPS-PBS, 2021). The SC households at 30.76 percent had the highest percentage of houses built under a government scheme compared to other social groups in the district. Since the sample size of ST category is too small, we are unable to arrive at any concrete conclusions regarding that category.

3.5.2 House Type

Based on the material used for 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 houses are as follows.

Chart 3.15 Types of Houses – Area-wise

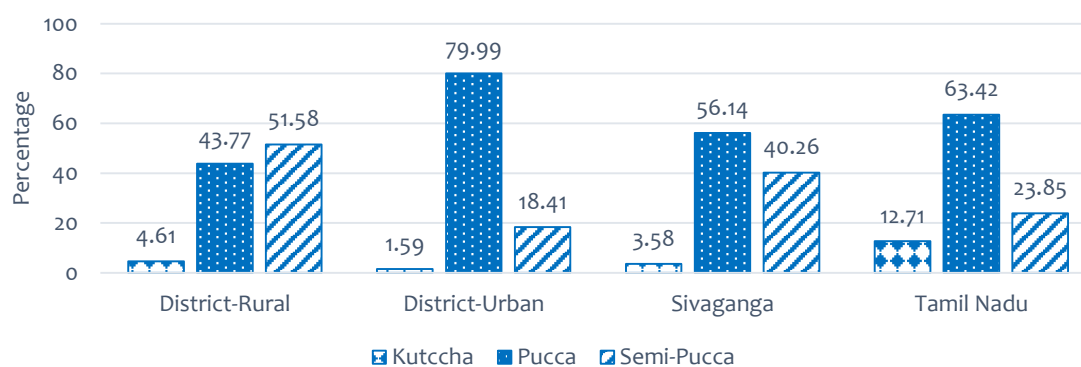


Chart 3.15 shows that majority of households at 79.99 percent in the district were living in pucca houses. The percentage of households living in pucca houses was lower than the state estimates of 63.42 percent. The percentage of households living in pucca houses was almost double in urban areas compared to the rural areas of the district. While 52.93 percent of state rural households lived in pucca houses (TNHPS-PBS, 2021), only 43.77 percent of rural households in the district lived in pucca houses. More than half the rural households were living in semi-pucca houses. The percentage of people living in Kutccha houses is comparatively lower than the state estimates.

3.5.3 Primary Drinking Water Source

In this section we discuss on the PBS findings on primary source of drinking water of the households in Sivaganga district. The primary sources⁶ of water are: bottled water, piped water into dwelling, piped water to yard or plot, public tap or standpipe, tube well or borehole and others (protected well, unprotected well, surface water and other sources).

Chart 3.16 Primary Source of Drinking Water of Households

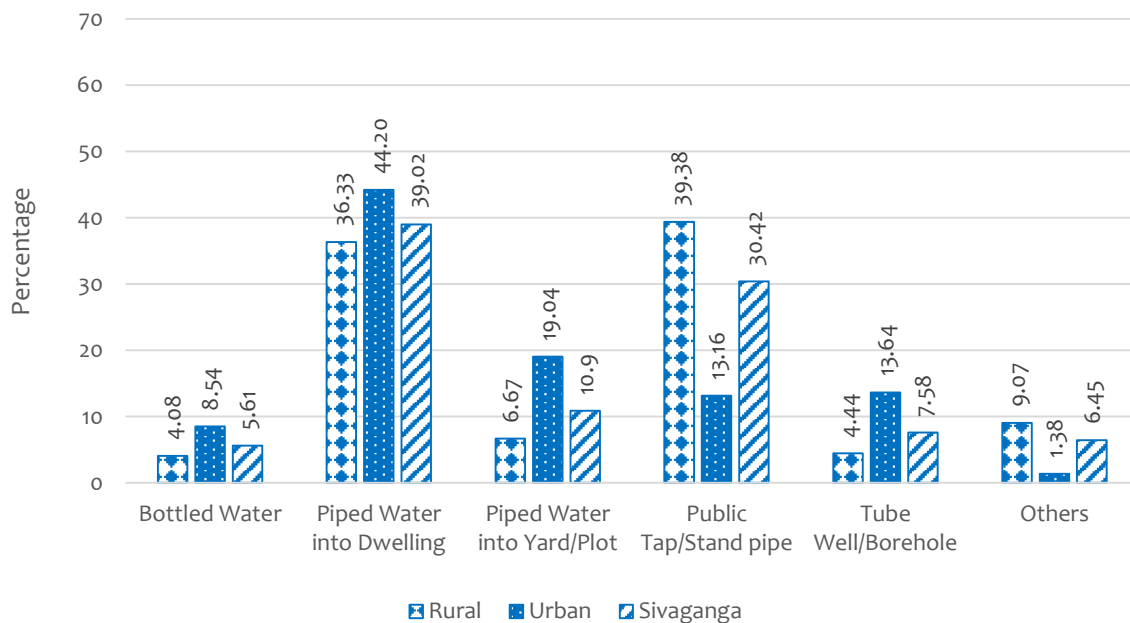


Chart 3.16 shows that majority of households in Sivaganga district (39.02 percent) were using piped water into dwelling as their primary source of drinking water followed by public tap/stand pipe, whereas 32.04 percent households in the state were using piped water into dwelling and, 32.80 percent using public tap/stand pipe (TNHPS-PBS, 2021). The state estimates show that piped water into the dwelling in urban areas at 37.02 percent and public tap/standpipe in rural areas at 44.51 percent were the primary water sources of households (TNHPS-PBS, 2021). Similarly, majority of urban households in the district at 44.20 percent used piped water into dwelling and majority of the rural households in the district at 39.38 percent used public tap or standpipe as their primary drinking water source.

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

3.5.4 Electricity

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

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

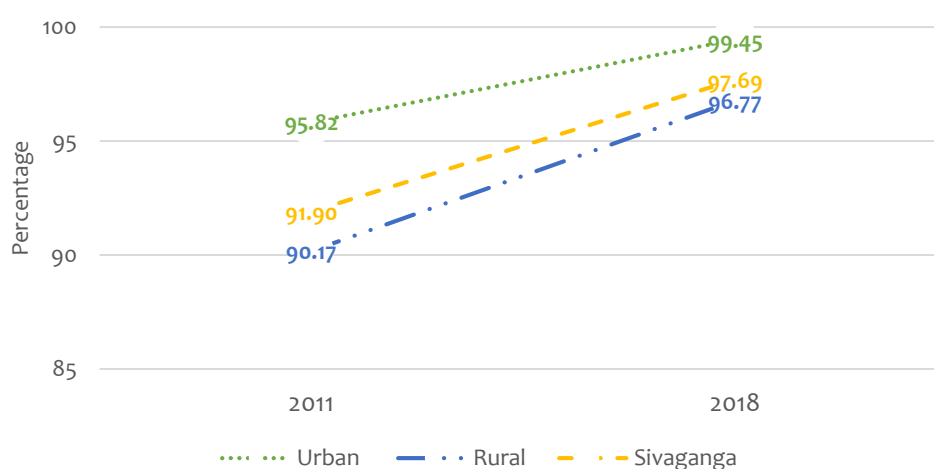


Chart 3.17 shows that a mass electrification had happened in both the rural and urban areas of Sivaganaga district during the period from 2011 to 2018 where the rate of growth of households with electricity was higher in rural areas. Sivaganga district was ranked fifteenth among the then 32 districts in terms of electrification (TNHPS-PBS, 2021). Around 97.69 percent of 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 Census (2011) and the PBS 2018 estimates on the primary cooking fuel by the households in the district is given in Chart 3.18 and 3.19.

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

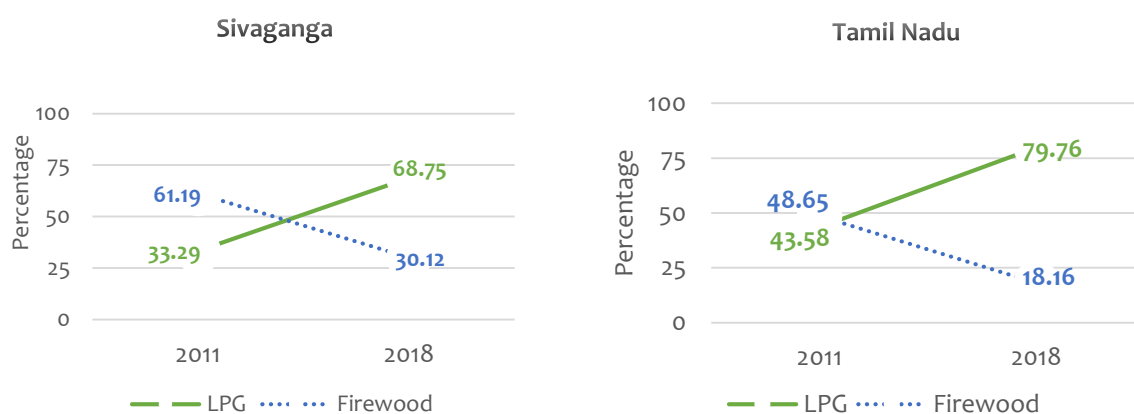


Chart 3.18 shows that although the use of LPG as the primary cooking fuel in Sivaganga district had increased tremendously from 33.29 percent in 2011 (Census 2011) to 68.75 percent in 2018, around 30 percent of households in the district still used firewood as the primary fuel for cooking in the same year. Compared to other districts of Tamil Nadu, Sivaganga district was ranked twenty fifth in terms of LPG use and ranked eighth in terms of firewood use as primary fuel for cooking (TNHPS-PBS, 2021).

Chart 3.19 Comparison of Primary Cooking Fuel – Rural and Urban

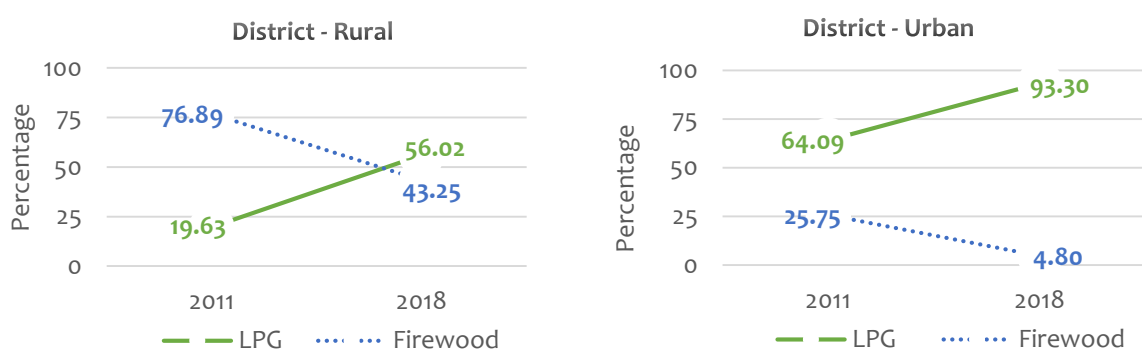


Chart 3.19 indicates that the percentage of households using LPG as primary cooking fuel was higher in urban areas at 93.30 percent compared to rural areas at 56.02 percent in the district. Around 43.25 percent of the households in the rural areas of the district was using firewood as the primary cooking fuel. The usage of firewood had reduced drastically and there is notable increase in LPG as the primary cooking fuel in both urban and rural areas.

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

Primary Cooking Fuel	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Firewood	36.58	49.48	17.65	31.21	62.95	0.00	30.12
LPG	62.41	50.52	80.88	68.39	36.70	95.37	68.75
Kerosene	0.67	0.00	0.81	0.16	0.08	2.59	0.63
Others	0.33	0.00	0.35	0.24	0.28	1.19	0.33
DK/RF	0.00	0.00	0.31	0.00	0.00	0.84	0.17
Total	100	100	100	100	100	100	100

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

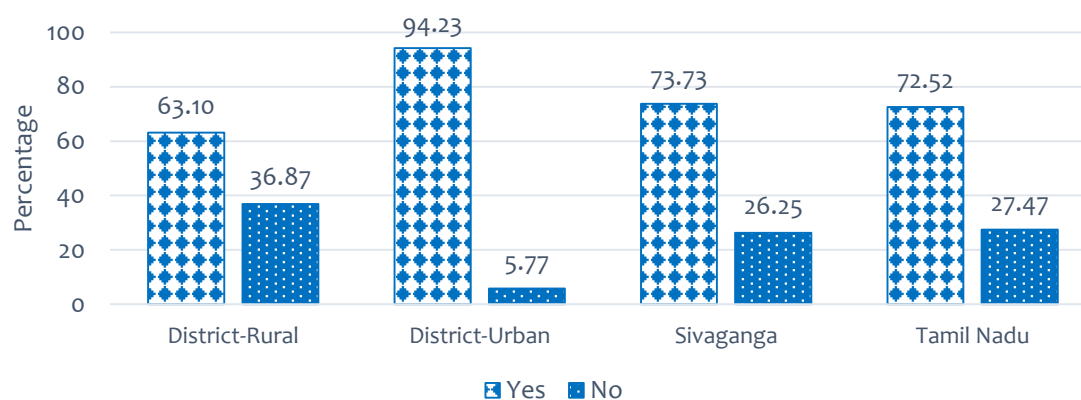
Table 3.23 shows that the percentage of households using LPG as the primary cooking fuel was higher among the General category households at 95.37 percent, followed by the BC households at 80.88 percent. A higher percentage of the DNC households at 62.95 percent used firewood as the primary cooking fuel compared to the other social groups.

No General category household was using firewood as the primary cooking fuel in the district compared to the state estimate for this social group at 2.5 percent (TNHPS-PBS, 2021). The results for the ST 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 is given in Chart 3.20.

Chart 3.20 Presence of Latrine within the Premises of the Household



The percentage of households with latrine within house premises have increased from 40.69 percent in 2011 (Census, 2011) to 73.73 percent in 2018. Sivaganga district was positioned fifteenth among the 32 districts in terms of the presence of latrine facilities within the premises of the household (TNHPS-PBS, 2021). The households equipped with latrine facilities in the district were marginally higher than the state estimate. However,

the rural-urban disparity in sanitation was prevailing as the percentage of rural households equipped with latrine facilities was only 63.10 percent compared to the percentage of urban households with latrine facilities of 94.23 percent.

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

Latrine within House Premises	Social Group						
	SC	ST	BC	MBC	DNC	General	Sivaganga
Yes	66.94	50.52	83.96	74.69	47.79	100	73.73
No	33.06	49.48	16.00	25.31	52.21	0.00	26.25
DK/RF	0.00	0.00	0.04	0.00	0.00	0.00	0.02
Total	100	100	100	100	100	100	100

The estimates show that majority of general, BC and MBC households had latrine within the premises of the household in the district. The percentages were similar to the state estimates for General and BC households and higher for MBC households (TNHPS-PBS, 2021). Almost half the DNC households and one-third of SC households did not have latrine within the premises, compared to the state estimates of 34.80 percent and 47.70 percent respectively (TNHPS-PBS, 2021). The results for the ST category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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

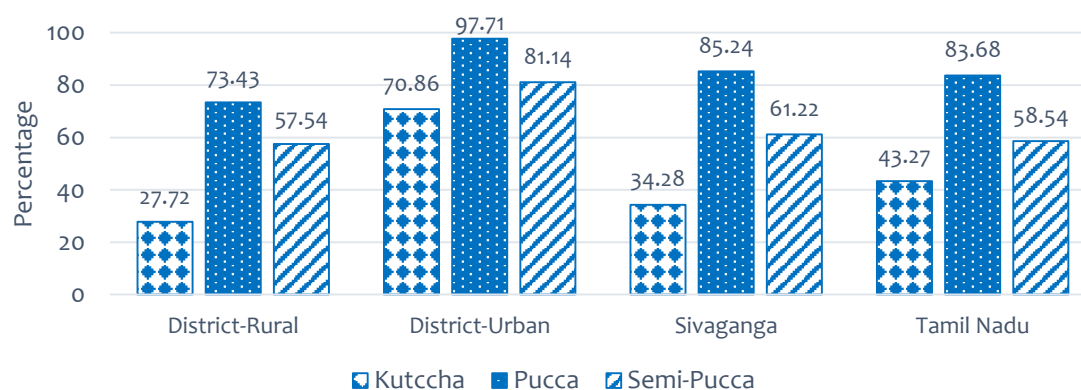
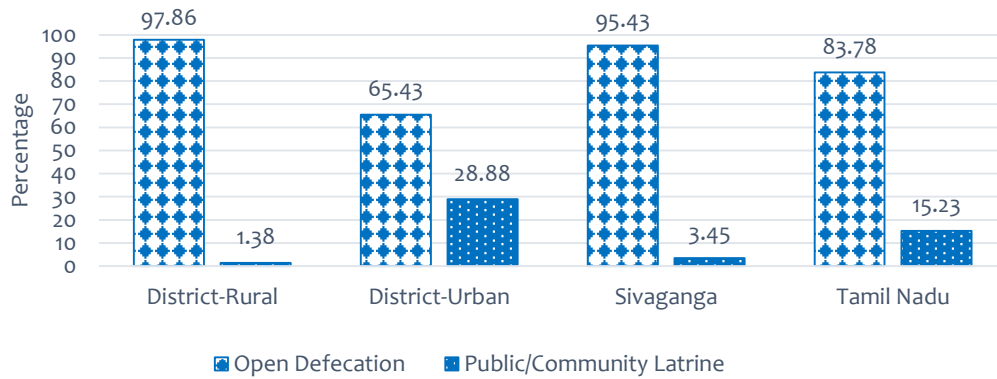


Chart 3.21 depicts the presence of latrine in the premises of different types of houses. Majority of the pucca houses had latrine facilities within the premises of the house. The percentages of semi-pucca and kutccha houses with latrine facilities within the premises of the house were lower compared to the pucca houses of the district. The percentages of kutccha, pucca and semi-pucca households with latrine facilities were higher in urban areas compared to the rural areas of the district. The district estimate was similar to the state estimate for pucca and semi-pucca houses, and lower for kutccha houses.

The alternative practices followed by the households without latrine within the premises of the house is shown in the Chart 3.22.

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 55.65 percent in 2011 (Census, 2011) to 25.06 percent in 2018 (TNHPS-PBS, 2021). Chart 3.22 shows that 95.43 percent of households without latrine within the premises of the houses in Sivaganga district practiced open defecation. The practice of open defecation was higher in rural areas compared to the urban areas of the district. The percentage of households without latrine within the premises of the house and practicing open defecation was higher than the state estimate. Compared to other districts of Tamil Nadu, Sivaganga district was positioned fourteenth in terms of percentage of total households following open defecation.

4. Conclusion and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of the Sivaganga district was conducted among a sample of 5,354 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.

The district's estimates of the percentage of households owning agricultural land were higher than the state estimate. Sivaganga district ranked fourth in terms of the percentage of total households that own agricultural land, trailing only Ramanathapuram and Pudukkottai. The percentage of households in the district that owned at least one agricultural, allied agricultural, or fishing asset, as well as at least one household asset, exceeded the state estimates. The proportion of households living in their own houses was also higher than the state estimate. The percentage of households with electricity in the district was comparable to state estimates. The number of households in the district with latrines on their premises exceeded the state estimate. The Gini coefficient and Lorenz curve showed that income inequality in the district was lower than in the state estimates.

Despite these advancements, several other indicators in the Sivaganga district necessitate in-depth scrutiny. The literacy rate in the district falls below the state estimate, ranking nineteenth in the state. Approximately 18.44 percent of the population in the district lacks formal education, with almost 90% of this subgroup experiencing functional illiteracy.

In terms of employment, the Sivaganga district holds the twenty-second rank, trailing only Thoothukkudi and Dharmapuri districts. The mean annual household income in the district is lower, registering a deficit of 26.53 percent compared to the state estimate, placing the district in the twenty-second position in this aspect as well. The district exhibits a lower percentage of employed individuals aged 14 and above compared to the state estimates which is a cause for concern. The underdevelopment in the trinity of education, employment, and income raises significant concerns for the district, and it also elucidates the observed backwardness in various housing indicators.

Surprisingly, the urban areas within the Sivaganga district display a substantial reliance on tube wells/boreholes, constituting around 13.64 percent of households for primary drinking water sources. Moreover, the prevalence of LPG usage for cooking in the district is lower than the state estimate, with firewood serving as the primary cooking fuel for almost one-third of households. The district necessitates an enhancement of its educational infrastructure to catalyse a more substantial improvement in its literacy rate. The district's literacy rate exhibited a slower growth trajectory than the state estimate between 2011 and 2018, emphasizing the exigency for targeted educational interventions. Governmental involvement is imperative to ensure universal access to quality water, either

through piped water installations within households or the provision of public taps/standpipes.

An alarming reliance on firewood as the primary cooking fuel is observed, particularly in more than half of the households belonging to the DNC (Denotified Communities) category and one-third of those belonging to the SC (Scheduled Castes) category within the district. This reliance on firewood for cooking entails gender-specific implications, with women bearing a disproportionate burden in collecting firewood. A shift towards cleaner fuels such as LPG in these households holds the potential not only to redirect the time spent on gathering firewood towards more productive activities but also to positively influence the health of women engaged in daily cooking responsibilities. Additionally, efforts should be directed towards augmenting the availability of latrines within households, addressing sanitation needs comprehensively.

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

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



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