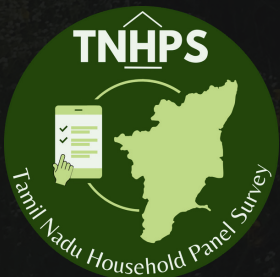


Department of  
Economics  
& Statistics



# Krishnagiri



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**

***Krishnagiri District***

February 2024

**Principal Investigator  
& Project Coordinator**

**Prof. Kripa Ananthpur**

**Principal Investigator**

**Prof. L. Venkatachalam**

**Principal Investigator**

**Dr. K. Jafar**

**In collaboration with  
the Department of Economics and Statistics,  
Government of Tamil Nadu**

Cover page image source: <http://tinyurl.com/mr2rxv73>

This work is licensed under a Creative Commons  
Attribution-NonCommercial-NoDerivatives 4.0  
International License



Madras Institute of Development Studies  
79, Second Main Road, Gandhi Nagar  
Adyar, Chennai 600020  
Ph: 24411574 / 24412589  
[www.mids.ac.in](http://www.mids.ac.in)

Suggested citation:

Ananthpur, K., Venkatachalam, L., & Jafar, K. (2024). 'Krishnagiri - Tamil Nadu Household Panel Survey (TNHPS): Pre-Baseline Survey (PBS) District Reports: 2018-19'. Chennai: Madras Institute of Development Studies, Government of Tamil Nadu. DOI: 10.5281/zenodo.10634810

## Table of Contents

List of Tables	2
List of Figures	3
Acknowledgements	4
Summary of PBS Findings	6
1. Introduction	10
1.1 Profile of Krishnagiri District	10
1.2 About the TNHPS and Pre-Baseline Survey (PBS)	11
2. Survey Response	12
3. Key Findings	13
3.1 Demographic Indicators	13
3.2 Development Indicators	14
3.2.1 Education	14
3.2.2 Education Status of Population (Age 7 and above)	15
3.2.3 Employment Status	19
3.3 Socio-Economic Indicators	24
3.3.1 Ownership of Agricultural Land	24
3.3.2 Ownership of Agricultural, Allied Agricultural and Fishing Assets	26
3.3.3 Presence of Household Assets	26
3.3.4 Possession of Ration Card	27
3.3.5 Type of Ration Card	28
3.4 Household Income	29
3.4.1 Annual Household Income from Various Sources in the year 2017-2018	29
3.4.2 Income Inequality in Krishnagiri District	30
3.4.3 Households' Expectation of Change in their Income in the Next 5 Years	31
3.5 Basic Infrastructure	32
3.5.1 House Ownership Status	32
3.5.2 House Type	34
3.5.3 Primary Drinking Water Source	34
3.5.4 Electricity	35
3.5.5 Primary Cooking Fuel	36
3.5.6 Sanitation	37
4. Conclusions and Recommendations	40
References	42

## List of Tables

Table 2.1	Distribution of Sample Households – Response-wise	12
Table 3.1	Social Group-wise Distribution of Households	14
Table 3.2	Literacy Rates between Census (2011) and PBS (2018)	15
Table 3.3	Formal Schooling of Population - Social Group-wise Percentages	16
Table 3.4	Highest Formal Educational Attainment of Population - Area-wise Percentages	17
Table 3.5	Highest Formal Educational Attainment of Population - Gender-wise Percentages	17
Table 3.6	Highest Formal Educational Attainment of Population - Social Group-wise Percentages	18
Table 3.7	Functional Literacy of Population with No Formal Schooling – Area-wise Percentages	18
Table 3.8	Functional Literacy of Population with No Formal Schooling - Social Group-wise Percentages	19
Table 3.9	Work type of Employed Population – Area-wise Percentages	21
Table 3.10	Percentage of Employed Population Engaged in Different Types of Livelihood Activities – Social Group-wise	22
Table 3.11	Composition of Population Not in the Labour Force - Social Group-wise Percentages	23
Table 3.12	Type of Agricultural Land Owned by the Households – Area-wise Percentages	24
Table 3.13	Ownership of Agricultural Land - Social Group-wise Percentages	25
Table 3.14	Size of Agricultural Land Owned by Households – Area-wise Percentages	25
Table 3.15	Presence of at least one Household Asset - Social Group-wise Percentages	27
Table 3.16	Possession of Ration Card at the Household Level - Social Group-wise Percentages	28
Table 3.17	Mean Annual Household Income from Different Sources in the FY 2017-2018 (INR)	29
Table 3.18	Gini Coefficient of Income Inequality- Area-wise	30
Table 3.19	Households' Expectation of Change in Income in the Next 5 Years – Area-wise Percentages	31
Table 3.20	Households' Expectation of Change in Income in the Next 5 Years - Social Group-wise Percentages	32
Table 3.21	Ownership Status of the Households' Dwelling/House - Social Group-wise Percentages	33
Table 3.22	House Constructed Under a Government Scheme - Social Group-wise Percentages	33
Table 3.23	Primary Cooking Fuel in Household - Social Group-Wise Percentages	37
Table 3.24	Presence of Latrine within the Premises of the Household - Social Group-wise Percentages	38

## List of Figures

Chart 3.1	Age-wise Distribution of Population – Area-wise	13
Chart 3.2	Formal Schooling of the Population – Area-wise	16
Chart 3.3	Formal Schooling of the Population – Gender-wise	16
Chart 3.4	Employment Status of Population (Age 14 years and above) – Area-wise	20
Chart 3.5	Employment Status of the Population (Age 14 years and above) – Gender-wise	21
Chart 3.6	Composition of Population Not in the Labour Force – Area-wise	22
Chart 3.7	Composition of the Population Not in the Labour Force (Age 14 years and above) – Gender-wise	23
Chart 3.8	Ownership of Agricultural Land – Area-wise	24
Chart 3.9	Ownership of Agricultural, Allied Agricultural and Fishing Assets – Area-wise	26
Chart 3.10	Ownership of at least one Household Asset – Area-wise	27
Chart 3.11	Possession of Ration Card – Area-wise	28
Chart 3.12	Type of Ration Card at the Household Level – Area-wise	29
Chart 3.13	Lorenz Curve and Income Inequality	31
Chart 3.14	Ownership Status of the Households' Dwelling/House – Area-wise	32
Chart 3.15	Type of House – Area-wise	34
Chart 3.16	Primary Source of Drinking Water of Households – Area-wise	35
Chart 3.17	Comparison of Households with Electricity between Census (2011) and PBS (2018)	35
Chart 3.18	Comparison of Primary Cooking Fuel - District and Tamil Nadu	36
Chart 3.19	Comparison of Primary Cooking Fuel – Rural and Urban	36
Chart 3.20	Presence of Latrine within the Premises of the Household – Area-wise	37
Chart 3.21	Presence of Latrine in the Premises of Different Types of Houses – Area-wise	38
Chart 3.22	Alternate Practices of Defecation by the Households without Latrine – Area-wise	39

## Acknowledgements

We would like to thank the Planning, Development and Special Initiatives Department (P&D) of the Government of Tamil Nadu (GoTN) for initiating the Tamil Nadu Household Panel Survey's Pre-Baseline Survey (TNHPS–PBS), coordinated by the Madras Institute of Development Studies (MIDS), Chennai, India.

Our gratitude goes to Dr. V. Irai Anbu, former Chief Secretary, GoTN and former Commissioner of Department of Economics and Statistics (DES), GoTN under whose guidance this project was conceptualised and implemented. We thank Mr. Ramesh Chand Meena, Additional Chief Secretary, P&D, GoTN; Dr. K. Gopal, former Additional Chief Secretary, P&D, GoTN; Mr. Vikram Kapur, former Additional Chief Secretary, P&D, GoTN and current Additional Chief Secretary, Tamil Nadu Small Industries Development Corporation, GoTN, and Mr. S. Krishnan, former Additional Chief Secretary, Industries, Investment Promotion & Commerce Department, GoTN, and current Secretary, Ministry of Electronics and Information Technology (MeitY), for giving us the opportunity to conduct the TNHPS–PBS to collect preliminary data for key socioeconomic variables. We are also thankful to the previous Planning and Development Secretaries—Dr. T. V. Somanathan, Ms. Jayashree Raghunandan and Mr. Ashish Vachhani—for their support and advice and to the Government of Tamil Nadu for providing the required funding for this survey.

We thank Mr. S. Ganesh, Director, DES, GoTN; Dr. Pinky Jowel, Dr. M. Karunakaran, Dr. Atul Anand, and Mr. Ashok Dongre, former Commissioners, DES, GoTN and Dr. P. Balasubramaniam, Additional Director, DES, GoTN for their support in planning and implementation of the survey. We thank Mr. Ramakrishnan, Additional Director, DES for his continued support. We are thankful to all the members of the Data Analytics Unit for their cooperation. We also extend our gratitude to the DES officials from Krishnagiri district who served during 2018-19—Mr. N.S. Thiyagarajan, Ms. K. Sudarai and Mr. A. Loganathan, the Deputy Directors (DD); Assistant Directors (AD) and Statistical Officers (SO)—for their support in conducting the training, survey supervision and carrying out quality control mechanisms. The high quality of the data collected during the survey was ensured by the Block Statistical Investigators and Assistant Statistical Investigators from Krishnagiri district. We thank them for their efforts.

We want to thank our colleagues from the Survey Research Center (SRC) at the University of Michigan for their continued methodological and technical support throughout the survey. Specifically, Prof. William G Axinn, Research Professor, Survey Research Center/Population Studies Center; Prof. Narayan Sastry, Research Professor, Survey

Research Center/Population Studies Center; Ms. Julie de Jong, Survey Methodologist, SRC; Dr. Raphael Nishimura, Director of Sampling Operations in Survey Research Operations; Prof. Dirgha J. Ghimire, Research Professor, Population Studies Center; and Dr. Emily Treleaven, Research Assistant Professor, SRC, Institute for Social Research.

Prof. P. G. Babu, former Director, MIDS deserves our gratitude for guiding the project team and providing insights on the key findings. We are thankful to Prof. Shashanka Bhide, Senior Advisor, Research Programmes, National Council of Applied Economic Research, New Delhi, and former Director, MIDS, for initiating this project and for his continued guidance. We thank late Dr. Hukum Chandra, National Fellow, ICAR–Indian Agricultural Statistics Research Institute and sampling consultant for the TNHPS, for his guidance on the sampling and estimation. We thank Prof. Brinda Viswanathan, Professor, Madras School of Economics, for her insights and inputs on the estimation and analysis.

Lastly, the former and current members of the TNHPS Project team deserve thanks for their hard work, without which this mammoth task would not have been possible. We extend our gratitude to the former team members: Research Managers—Ms. Radhika Asrani, Mr. Vinod Ramanarayanan, Mr. Rishi Kishore, and Dr. Karthick V., Research Consultant—Dr. Vipin Valiyatoor, Data Analysts—Ms. Aditya Anand and Mr. Shrikrishna Bhat K., Research Investigators—Ms. Diksha Ramesh, Ms. Laya Zachariah, Ms. Bhavya Shrivastava and Ms. Sreekutty M. Balan, Research Assistants- Ms. Gopika Vipin, Ms. Srinidhi Ramakrishnan, Ms. Anjana Raj, Ms. Miya Kunhathu, Mr. Varun Ramgopal, Mr. Thangasamy P., and Mr. Srivatsan Mohan, and the Research Interns. We appreciate the hard work and contributions of the current team including the Research Manager- Ms. Jyotsna Rosario, Field Manager- Dr. G. V. Shanmugam, IT Consultant- Mr. G. Manivannan, Research Associates—Ms. Gargi Sridharan, Mr. Balamurugan S., Ms. Madhurambal S. and Mr. Balaram Vishnu S., and Research Assistant—Ms. Kanishka S. M., and the Research Interns. We are also grateful to the Regional and District level field managers who played a vital role in the training and data collection processes.



## Summary of PBS Findings

### *Demographic Indicators*

- Krishnagiri had a sample size of 6,470 households, of which 60.31 percent of households were from rural areas and 39.69 percent of households were from urban areas.
- The district had a huge demographic dividend with around two-thirds of the population aged between 6 and 45 years. One-third of the population was between 26-45 years of age.
- The BC and MBC social groups were the largest in number, together constituting around 80 percent of the total households in the district.

### *Education*

- The PBS estimates showed that the literacy rate in the district had increased from 71.46 percent (Census 2011) to 79.84 percent in 2018 but continued to be lesser than the state estimate of 85.40 percent.
- A wide gender gap in literacy rate at 12.85 percent prevailed in the district in 2018, which was higher than the state gender gap of 10.82 percent. The gender gap was almost twice as wider in rural areas at 14.08 percent compared to urban areas at 7.91 percent.
- While more than 90 percent of the General category population in the district had received formal education, less than two-thirds of the ST population had done so.

### *Employment*

- The share of the unemployed population at 2.92 percent was lower in the district compared to the state estimate of 3.50 percent. Almost half the population at about 49.40 percent was employed and the rest at 47.64 percent were not in the labour force.
- While almost three quarters—about 71.84 percent—of the male population was employed, the female work participation was only a little over a quarter at 27.25 percent.
- Around 71 percent of the female population was not in the workforce, and among these, majority of them at about 74.24 percent were associated with attending domestic duties as a homemaker.

- Since Krishnagiri is primarily a rural district, around one-third of the employed population depended on agricultural sector for employment. More than one-third of the ST, and MBC populations were engaged in agriculture.
- While salaried work in the private sector was predominant in urban areas, casual labour in the agricultural and service sectors was most common in rural areas of the district.

### *Land Ownership and Assets*

- The percentage of households owning agricultural land in the district was much higher than that at the state level estimate of 19.41 percent. BC and MBC category households were the predominant agricultural landholders in the district.
- Almost half the households at 46.50 percent that owned agricultural land in the district depended on rain-fed irrigation alone.
- Around 90 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares.
- About a quarter—about 23.64 percent—of the households in Krishnagiri district owned at least one agricultural, allied agricultural or fishing asset. This was higher than the state PBS estimate of 20.92 percent.
- While all General category households owned at least one household asset, around 12 percent of SC and MBC households did not own any household asset, including a mobile phone.

### *Household Income*

- The mean annual household income of Krishnagiri district was ₹1,40,340, almost on par with the state PBS estimate of ₹1,42,752; in the urban areas it was ₹2,18,806 and in rural areas it was ₹1,19,210. Krishnagiri was ranked seventh out of 32 districts with respect to this parameter.
- The mean income from salaried work (₹2,39,902) was the highest, followed by self-employment (₹1,82,041).
- The Gini coefficient for income inequality in Krishnagiri district (0.582) was higher than the state estimate (0.563). Contrary to other districts' estimates, the income inequality across households in rural areas of the district (0.590) was higher than the urban areas (0.494).

- While more than two-thirds of the General category households in the district expected an increase in income in the next five years, less than half the SC, ST and MBC households expected the same.

### *Housing*

- Around 84 percent of the households in the district were living in their own house, which was higher than the state level estimate of 75.16 percent. In rural areas, around 93 percent of households lived in an own house whereas in urban areas it was only around 53 percent.
- Out of the households that lived in an own house in the district, 13.20 percent of houses were built under a government scheme. SC and ST households had the highest percentage of houses built under a government scheme in the district compared to other social groups.
- More than half the households at 52.46 percent in the district were living in pucca houses, which was lower than the state level estimate of 63.42 percent.

### *Drinking Water, Electricity, and Cooking Fuel*

- The primary source of water for households in the state was piped water into the dwelling in urban areas and public tap/standpipe in rural areas, but in Krishnagiri district, public tap/standpipe were predominantly used both in urban and rural households.
- Krishnagiri district witness rapid electrification in its rural areas between 2011 and 2018, with an increase from 89.07 percent in 2011 to 96.78 percent in 2018.
- In 2011, firewood was the primary cooking fuel by households in the district—about 60.34 percent—and LPG was being used by only about one-third of the households. But in 2018, this scenario had reversed and almost three-quarters of the households were using LPG.
- Around half of the ST households and around one-third of the SC and MBC households in the district still used firewood as the primary cooking fuel.

### *Sanitation*

- The percentage of households with latrine within the premises of the house had increased from 33.02 percent in 2011 (Census, 2011) to 79.53 percent in 2018 in the district. Krishnagiri district was ranked seventh in the state among the 32 districts in terms of this indicator.

- Almost a quarter of the rural households and around 37 percent of ST households did not have access to a latrine within the house premises.
- The proportion of households in the district following open defecation had declined considerably from 64.25 percent in 2011 to 19.51 percent in 2018.

## 1. Introduction

### 1.1 Profile of Krishnagiri District

Krishnagiri district in Tamil Nadu was formed in the year 2004 from the bifurcation of Dharmapuri district. It is in the Western region of the State, bordering Karnataka and Andhra Pradesh in the North, Vellore and Tiruvannamalai in the East, Dharmapuri in the South, and Karnataka in the West.

According to Census (2011), Krishnagiri had a total population of 18.80 lakhs, accounting for approximately 2.61 percent of Tamil Nadu's total population, which was 7.21 crores. The district comprised of 4.48 lakh households, with a majority of 77.21 percent residing in rural areas and 22.79 percent residing in urban areas. The male population was 51.08 percent, and the female population was 48.92 percent. Krishnagiri demonstrated a child-sex ratio of 926.08 which was higher compared to the state estimate of 943.27. Within the social groups, 14.2 percent of the population belonged to the Scheduled Castes, while 1.2 percent belonged to the Scheduled Tribes. The literacy rate in Krishnagiri district stood at 71.46 percent, which is lower than the state's average of 80.09 percent. The male literacy rate was reported to be 78.72 percent, while the female literacy rate was reported to be 63.91 percent. These figures indicate that there is potential to improve education, especially among females.

In 2018-19, the Net District Domestic Product of Krishnagiri was ₹47,80,209 lakh, which was thirteenth highest amongst districts. Whereas it's per capita Net District Domestic Product was ₹2,23,284, which was sixth highest amongst districts and surpassed Tamil Nadu's average of ₹1,83,884 (Department of Economics and Statistics, 2023). In terms of sectoral distribution, the primary sector (agriculture and allied) contributes approximately eight percent to its domestic income, while the secondary (industry) and tertiary (service) sectors contribute approximately 31 percent and 62 percent, respectively (Department of Economics and Statistics, 2017).

According to the Tamil Nadu Human Development Report (2017), Krishnagiri ranked ninth in terms of the Human Development Index with a score of 0.788. While this suggests a moderately high level of overall development, the district lags in specific areas. It ranked twenty fourth in the Gender Inequality Index with a score of 0.091, indicating that gender disparities persist in the district and the district demonstrates relatively higher levels of gender inequality. In terms of the Child Development Index, the district ranked thirtieth with a score of 0.474, highlighting the need to improve health, nutrition, and education of children. Additionally, Krishnagiri ranked twenty sixth in terms of the Multidimensional

Poverty Index with a score of 0.6, indicating that a significant portion of the district's population face multiple deprivations in various aspects of life and there is a need for comprehensive interventions to address poverty and improve well-being.

In general, The Krishnagiri emerges as a developing district of Tamil Nadu, characterized by relatively high domestic income and noticeable shortfalls in various aspects of development.

### *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 1476 Primary Sampling Units—684 rural PSUs and 792 urban PSUs.

This report analyzes data from the PBS for the Krishnagiri district and presents the findings. Wherever possible, the report compares the district PBS estimates with the most recent census data of Krishnagiri (Census, 2011) and the state PBS estimates (TNHPS-PBS, 2021) to assess the socio-economic development of Krishnagiri district. The sample size for the district was 6,470 households, among which 3,902 households were from rural areas and 2,568 households were from urban areas. The blocks covered during the survey were: Bargur, Hosur, Kaveripattinam, Krishnagiri, Shoolagiri, Thally, Uthangarai and Veppanapalli.

## 2. Survey Response

For the Pre-Baseline Survey (PBS) 2018-19, a total of 7,400 households were selected in Krishnagiri district using a multi-stage stratified sampling design<sup>1</sup>. The final sample size for PBS was 6,470 households, of which 60.31 percent of households were from rural areas and 39.69 percent of households were from urban areas of the district. The area-wise distribution of the total sample as well as the survey response is given in Table 2.1.

*Table 2.1 Distribution of Sample Households – Response-wise*

Response of Households	Area Type					
	Rural		Urban		Krishnagiri	
	Number of HHs	Percentage	Number of HHs	Percentage	Number of HHs	Percentage
Response	3,902	92.71	2,568	80.48	6,470	87.43
Non-Response	113	2.68	315	9.87	428	5.78
Non-sample	194	4.61	308	9.65	502	6.78
<b>Total</b>	<b>4,209</b>	<b>100</b>	<b>3,191</b>	<b>100</b>	<b>7,400</b>	<b>100</b>

Krishnagiri district had a lower response rate—willingness of households to participate in the TNHPS-PBS—of 87.43 percent compared to the state response rate of 96.5 percent (TNHPS-PBS, 2021). Rural areas had a higher response rate compared to the urban areas. Around 5.78 percent of households were not willing to participate in the survey. About 6.78 percent of the selected samples were removed as they were not considered as households as per the definition used in the PBS<sup>2</sup>.

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

<sup>2</sup> 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.

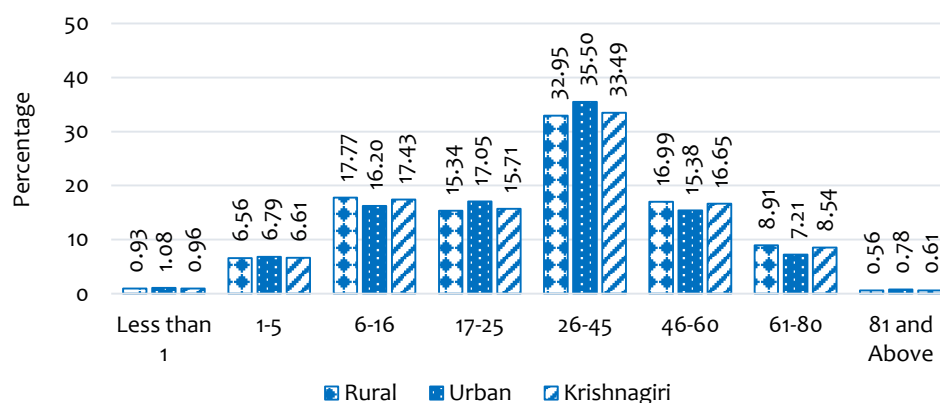
### 3. Key Findings

#### 3.1 Demographic Indicators

As per the PBS estimates, the average household size<sup>3</sup> in the district had reduced from 4.20 in 2011 (Census, 2011) to 3.76 in 2018. As per the PBS estimates, 50.01 percent of the population in the district were male, and 49.94 percent of the population were female. Around 15.68 percent of the households in the district were headed by females, which was lower than the state estimate of 18.93 percent (TNHPS-PBS, 2021).

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

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



As per the PBS estimates, around one-third of the population in the district were in the age group of 26 to 45 years. Within the district, the population aged 17-60 was higher in urban areas at 67.93 percent than in rural areas at 65.28 percent.

The percentage of currently married population in the district was 72.02 percent. A higher percentage of males were currently married compared to females. The widowed female population was notably higher than the widowed male population. The widowed population in rural areas was higher than in the urban areas of the district.

The religion-wise distribution of the households in the district as per the PBS estimates shows that 94.15 percent of the households practiced Hinduism, 4.16 percent practiced Islam and 1.61 percent followed Christianity.

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

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



*Table 3.1 Social Group-wise Distribution of Households*

<b>Social Group</b>	<b>Percentage</b>
SC	17.00
ST	0.40
BC	40.76
MBC	39.30
Denotified Communities (DNC)	0.08
General	1.60
DK/RF	0.85
<b>Total</b>	<b>100</b>

As per the PBS estimates, the highest percentage of households in Krishnagiri district belonged to the BC category, closely followed by the MBC category. The percentages of SC and ST households in the district were 17.00 percent and 0.40 percent respectively in 2018.

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

### *3.2 Development Indicators*

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

#### *3.2.1 Education*

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

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

Gender	District-Rural		District-Urban		Krishnagiri		Tamil Nadu	
	2011	2018	2011	2018	2011	2018	2011	2018
Male	75.43	84.21	89.99	93.92	78.72	86.32	86.77	90.97
Female	58.88	70.13	80.94	86.01	63.91	73.47	73.40	80.15
<b>Total</b>	<b>67.32</b>	<b>77.09</b>	<b>85.54</b>	<b>90.00</b>	<b>71.46</b>	<b>79.84</b>	<b>80.09</b>	<b>85.40</b>

\*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 Krishnagiri district at 71.46 percent was lesser than the state estimate of 80.09 percent. The PBS estimates showed that the literacy rate in Krishnagiri district had increased to 79.84 percent in 2018, which continued to be lower than the state estimate of 85.40 percent. Nevertheless, the district had registered an 8.38 percent increase in literacy rate in this period while the state had registered a 5.31 percent increase. The difference in literacy rate between the state estimate and Krishnagiri district was 8.63 percent in 2011, which had declined to 5.56 percent in 2018 as per the PBS estimates.

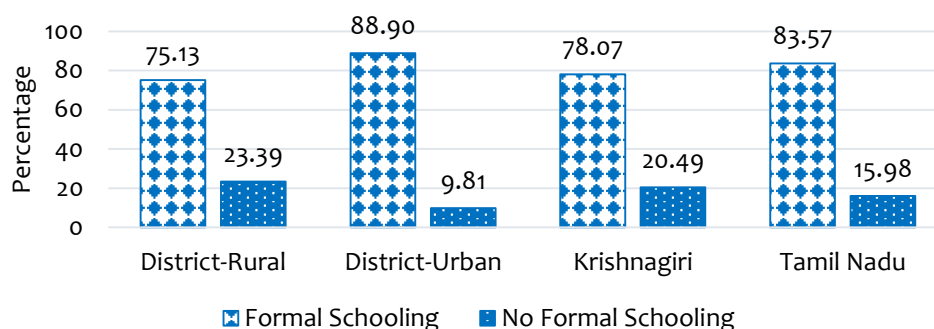
Both male and female literacy rates in Krishnagiri district had recorded an increase during the period under consideration, though a wide gender gap still prevailed. The gender gap in literacy rate had declined from 14.81 percent in 2011 to 12.85 percent in 2018, which is still higher than the state gender gap of 10.82 percent in 2018. In terms of literacy rate, Krishnagiri was ranked low at twenty seventh among the then 32 districts in 2018 (TNHPS-PBS, 2021).

Both rural and urban literacy rates recorded an increase between 2011 and 2018, though the rural literacy rate was still 12.91 percent lower than the urban literacy rate in 2018. The gender gap in literacy rate was much higher in rural areas at 14.08 percent than in urban areas at 7.91 percent.

### *3.2.2 Education Status of Population (Age 7 and above)*

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

Chart 3.2 Formal Schooling of the Population – Area-wise



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

Chart 3.2 shows that more than three quarters of the specified population in the district had attended formal schooling, which was lower compared to the state estimate. The percentage of population with formal education in urban areas was much higher than in rural areas of the district.

Chart 3.3 Formal Schooling of the Population – Gender-wise

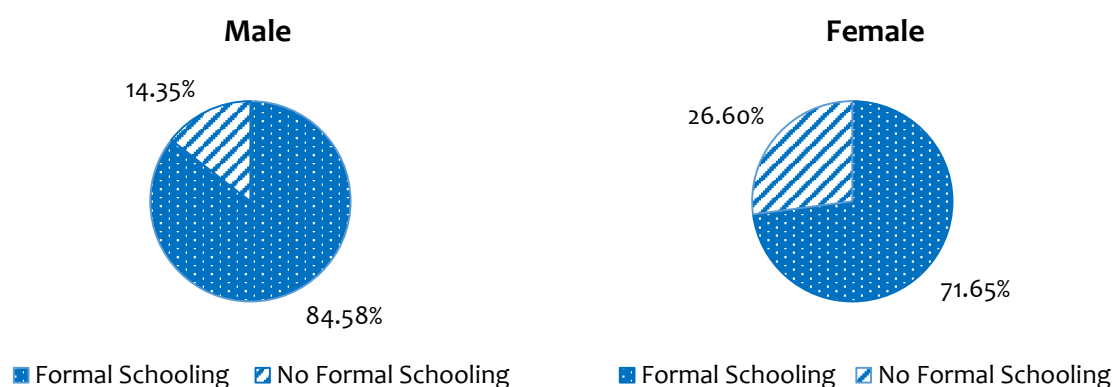


Chart 3.3 shows that the percentage of the population that had acquired formal education in the district was much higher among males compared to females, again denoting a wide gender gap, like in literacy.

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

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

Education Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Formal Schooling	74.41	64.88	82.65	74.62	97.15	93.09	78.07
No Formal Schooling	24.85	35.12	15.70	23.76	2.85	6.02	20.49
Others and DK/RF	0.75	0.00	1.64	1.62	0.00	0.89	1.44
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.3 shows a wide variation across social groups in attainment of formal schooling. While more than 90 percent of the General category population in the district had received formal education, less than two-thirds of the ST population had done so. The results pertaining to the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

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

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

Educational Attainment	Area Type		
	Rural	Urban	Krishnagiri
Primary (I to V)	22.42	16.09	20.89
Middle School (VI to VIII)	19.74	15.52	18.72
High School (IX to X)	23.69	23.85	23.73
Higher Secondary (XI to XII)	14.66	15.54	14.88
Bachelor's degree	9.36	13.65	10.40
Diploma Degree	3.53	7.39	4.46
Post Graduate Degree	4.65	6.52	5.10
Other Higher Education	0.01	0.01	0.01
Others/DK/RF	1.94	1.43	1.82
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Around 78.22 percent of the district's population—aged seven and above, with formal education—were either pursuing or had completed schooling upto higher secondary level. The percentage of population that was either pursuing or had completed tertiary education—such as bachelor's degree, diploma, or post graduate degree and above—was 19.97 percent, which was slightly lower than the state estimate of 20.02 percent. Also, this figure was higher for urban areas than rural areas of the district.

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

Educational Attainment	Gender		
	Male	Female	Krishnagiri
Primary (I to V)	21.09	20.67	20.89
Middle School (VI to VIII)	18.14	19.41	18.72
High School (IX to X)	23.86	23.58	23.73
Higher Secondary (XI to XII)	13.60	16.36	14.88
Bachelor's degree	10.54	10.24	10.40
Diploma Degree	6.54	2.06	4.46
Post Graduate Degree	4.95	5.28	5.10
Other Higher Education	0.02	0.00	0.01
Others/DK/RF	1.24	2.39	1.82
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.5 shows that a higher percentage of females at 80.02 percent were either pursuing or had completed schooling upto higher secondary level compared to males at 76.69

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

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

Educational Attainment	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Primary (I to V)	21.19	23.63	20.07	22.15	20.82	8.10	20.89
Middle School (VI to VIII)	21.09	28.92	17.14	19.65	12.10	13.50	18.72
High School (IX to X)	26.56	24.79	21.77	25.19	20.59	17.93	23.73
Higher Secondary (XI to XII)	15.68	12.71	15.47	13.89	28.73	13.38	14.88
Bachelor's degree	7.74	2.80	11.71	9.54	7.53	23.41	10.40
Diploma Degree	3.33	5.30	5.45	3.55	6.47	8.05	4.46
Post Graduate Degree	3.41	1.85	6.44	3.88	3.76	14.67	5.10
Other Higher Education	0.00	0.00	0.00	0.03	0.00	0.00	0.01
Others/DK/RF	0.99	0.00	1.95	2.12	0.00	0.95	1.82
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

The social group-wise analysis in Table 3.6 shows that most of the SC and ST population in the district were either pursuing or had completed only primary or secondary school. The percentage of population with tertiary education—bachelor’s degree and above—was quite high among the General category at 46.13 percent, followed by the BC category at 23.6 percent. Similar to the national and state level trend, the percentage of population with higher educational qualification in the district was lower among SC and ST categories. The results pertaining to the DNC category must be interpreted in the context of their sample size, as discussed in Section 3.1.

About 20.49 percent of the population had not received formal education in Krishnagiri district (20.49 percent, 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	Krishnagiri
Yes	8.39	11.19	8.68
No	90.11	86.64	89.75
DK/RF	1.50	2.17	1.57
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.7 shows the functional literacy status of the population with no formal schooling in the district. Only 8.68 percent of the population without formal schooling had functional literacy. The specified population group in urban areas of the district had a slightly better functional literacy than the rural areas.

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

Functional Literacy	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	5.09	6.54	8.44	10.53	0.00	6.13	8.68
No	92.88	93.46	90.30	87.85	100	93.87	89.75
DK/RF	2.03	0.00	1.27	1.62	0.00	0.00	1.57
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.8 shows the functional literacy status of the population with no formal schooling, across various social groups. Functional literacy was low across all social groups. The sole DNC respondent in the district without formal schooling surveyed in the district did not possess functional literacy (as discussed in Section 3.1).

### 3.2.3 Employment Status

This section looks at the employment status of the household members, types of employment that they are engaged in, the unemployment rate at the district level and comparison of these findings with the state PBS estimates. In the PBS, the population aged 14 years and above has been classified as employed, unemployed and not in the labour force<sup>4</sup>.

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

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

<sup>4</sup> 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 who are involved = (Number of persons 14 years and above not in workforce/Total population of the district 14 years and above) \*100

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

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

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

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

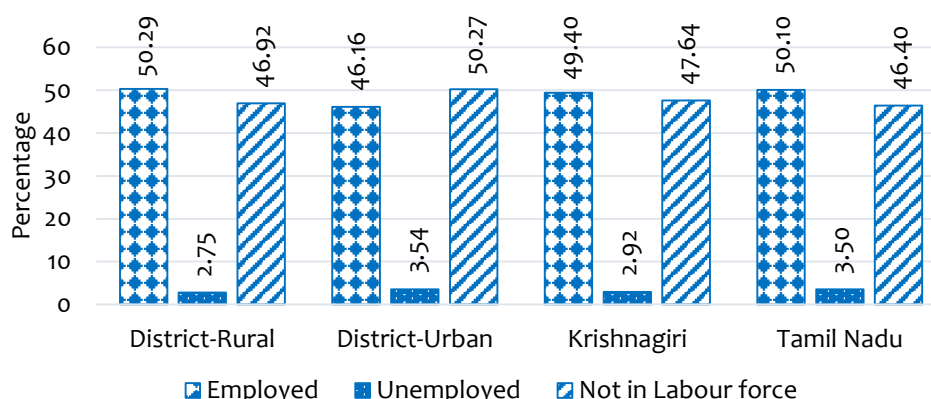


Chart 3.4 shows that the overall percentage of employed population—14 years and above—in the district was lesser than the state estimate. Also, the share of unemployed population was much lower in the district compared to the state. The percentage of population that was employed was higher in rural parts of the district than the urban. The unemployment status in rural areas of the district at 2.75 percent was lower than the state rural estimate of 3.6 percent, while the district urban unemployment status at 3.54 percent was higher than the state urban estimate of 3.3 percent. Krishnagiri district was ranked seventeenth among all districts in Tamil Nadu in terms of employed population and ranked ninth lowest in terms of the unemployed population.

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

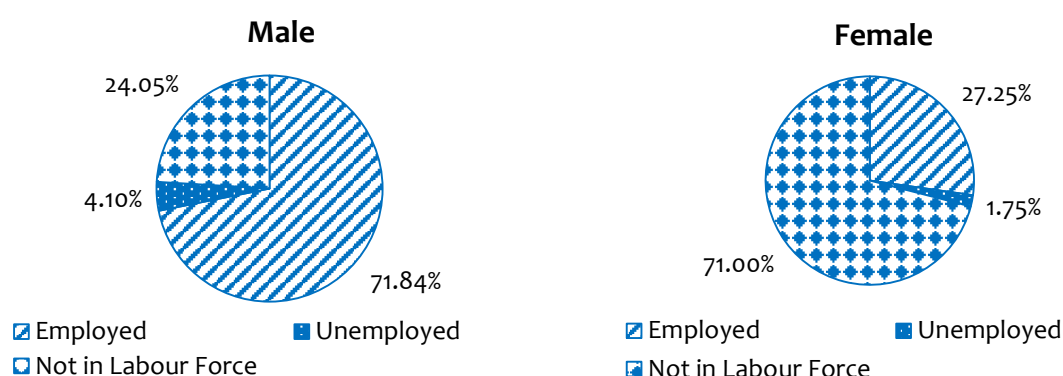


Chart 3.5 shows the gender-wise employment status of the population aged 14 years and above. While almost three quarters of the male population was employed, the female work participation was only a little over a quarter. Decreased female labour force participation has been well documented at the national level (Das et al., 2015; Desai, 2017; Desai & Joshi, 2019). While the district female work participation was higher than the national average of 23.3 percent in 2017-18 (National Statistical Office, 2019), it was lesser than the state estimate of 29.96 percent. Around 71.00 percent of the female population was not in the workforce, and among these, majority of them at about 74.24 percent were associated with attending to domestic duties as homemakers (see Chart 3.7). Krishnagiri district was ranked twenty-fourth in terms of employed female population and ranked eight lowest in terms of female unemployment.

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

Work Type	Area Type		
	Rural	Urban	Krishnagiri
Self Employed Agriculture	18.27	4.20	15.44
Self Employed Non-Agriculture	7.73	22.56	10.72
Self Employed Allied Agriculture	1.76	1.30	1.66
Casual Labourer Agriculture	19.58	3.05	16.25
Casual Labourer Industry	6.74	4.80	6.35
Casual Labourer Service	21.81	13.60	20.15
Casual Labourer (Others)	1.18	1.66	1.27
Salaried Worker Government	4.94	6.95	5.35
Salaried Worker Private	14.61	41.04	19.93
Other	0.03	0.29	0.08
Multiple Occupation	3.35	0.47	2.77
DK/RF	0.01	0.08	0.03
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Since Krishnagiri is primarily a rural district, around one-third of the employed population depended on agricultural sector for employment. While the greatest proportion of the working population in the state were salaried workers in the private sector at 21.82 percent (TNHPS-PBS, 2021), majority of the working population in Krishnagiri district were casual labourers in the service sector. While salaried work in private sector was predominant in



urban areas, casual labour in the service and agricultural sectors was most common in rural areas of 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	DNC	General	Krishnagiri
Self Employed Agriculture	2.66	20.79	21.01	16.25	0.00	6.63	15.44
Self Employed Non-Agriculture	5.10	1.05	14.26	9.95	33.09	16.95	10.72
Self Employed Allied Agriculture	2.02	0.00	1.52	1.64	7.84	2.42	1.66
Casual Labourer Agriculture	27.50	28.06	8.45	18.94	0.00	3.09	16.25
Casual Labourer Industry	5.78	0.00	5.96	7.29	0.00	3.39	6.35
Casual Labourer Service	28.61	40.16	13.38	23.10	0.00	5.26	20.15
Casual Labourer (Others)	2.94	0.00	0.77	1.02	0.00	0.75	1.27
Salaried Worker Government	4.67	0.78	6.42	4.60	29.65	8.36	5.35
Salaried Worker Private	18.53	8.13	25.48	13.81	29.43	52.87	19.93
Other	0.03	0.00	0.16	0.04	0.00	0.00	0.08
Multiple Occupation	2.16	1.03	2.53	3.33	0.00	0.27	2.77
DK/RF	0.00	0.00	0.05	0.01	0.00	0.00	0.03
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Krishnagiri being a rural district provided employment opportunities in the agriculture sector to more than one-third of the employed ST, and MBC populations. The working SC and ST population involved as casual labour in agriculture in the district—27.50 percent and 28.06 percent respectively—were lesser than the state estimates of 33.33 percent of SC population and 41.32 percent of ST population in the same occupation (TNHPS-PBS, 2021). Next to agriculture, casual labour in service sector was the most opted employment by the SC, ST, and MBC population in the district. The working population in the General and BC categories were predominantly involved in salaried work in the private sector. The results pertaining to the DNC category must be interpreted in the context of their sample size of nine households surveyed in the district, as discussed in Section 3.1.

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

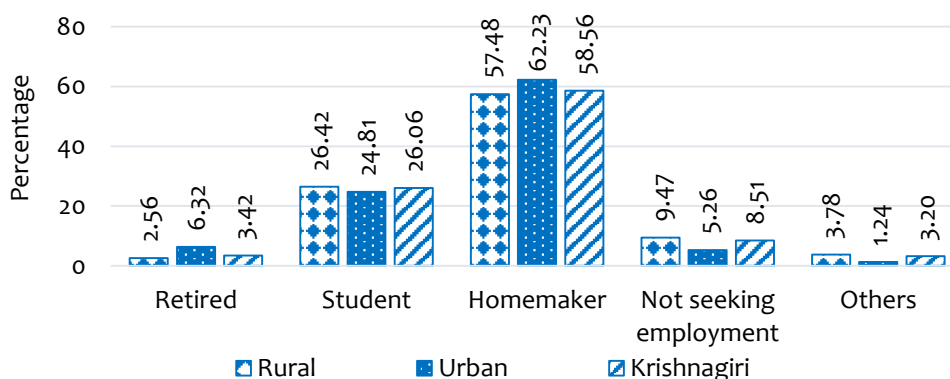
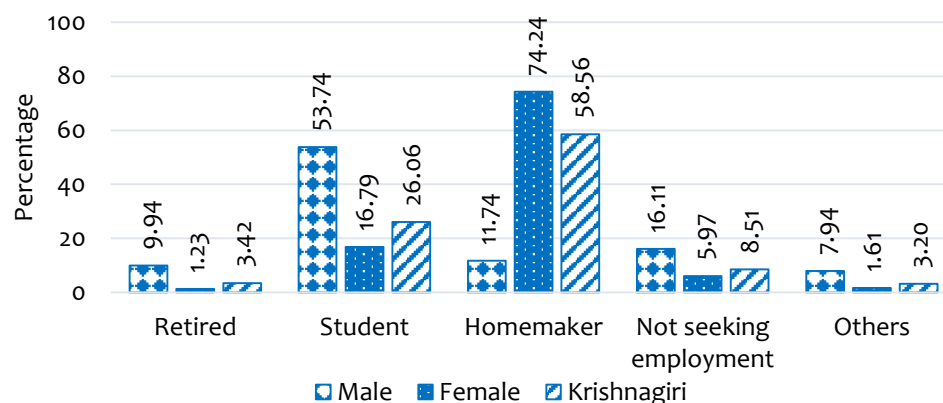


Chart 3.6 shows that, similar to the trend at the state level, more than half the population that was not in the labour force in the district comprised homemakers involved in unpaid

domestic duties of the household, followed by students. The proportions of the population that were not seeking employment or were students were higher in rural areas than urban areas, whereas the percentages of retired people and homemakers were higher in urban areas than rural areas.

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



The gender-wise distribution of the population currently not in the labour force aged 14 and above is given in Chart 3.7. While Chart 3.3 represents the lower female involvement in formal education, Chart 3.7 shows the staggeringly lower female involvement in higher education compared to men as only 16.79 percent of the female not in labour force were students. Similar to the state trend, majority of the male not-in-labour-force population were students, whereas a majority of females were homemakers. It must be noted that the study did not capture unpaid domestic labour or any other form of unpaid labour carried out by women. The composition of the population not in the labour force analyzed according to social groups is given in Table 3.11.

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

Current Status	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Retired	1.93	2.17	4.20	2.86	0.00	9.82	3.42
Student	31.44	20.26	23.79	26.35	44.55	22.49	26.06
Homemaker	53.24	73.77	61.70	57.25	55.45	62.67	58.56
Not seeking employment	7.75	3.80	7.15	10.61	0.00	3.81	8.51
Others	4.90	0.00	3.04	2.72	0.00	1.20	3.20
DK/RF	0.75	0.00	0.13	0.20	0.00	0.00	0.25
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

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.

### 3.3 Socio-Economic Indicators

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

#### 3.3.1 Ownership of Agricultural Land

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

Krishnagiri is a largely rural and agricultural district. The percentage of households owning agricultural land in the district was much higher than that at the state level at 19.41 percent. The district was ranked seventh in the state in terms of agricultural land ownership. Area-wise comparison shows that a higher proportion of households in rural and urban areas of the district owned agricultural land compared to the respective state level rural and urban estimates at 29 percent and 8.61 percent respectively (TNHPS-PBS, 2021).

Chart 3.8 Ownership of Agricultural Land – Area-wise

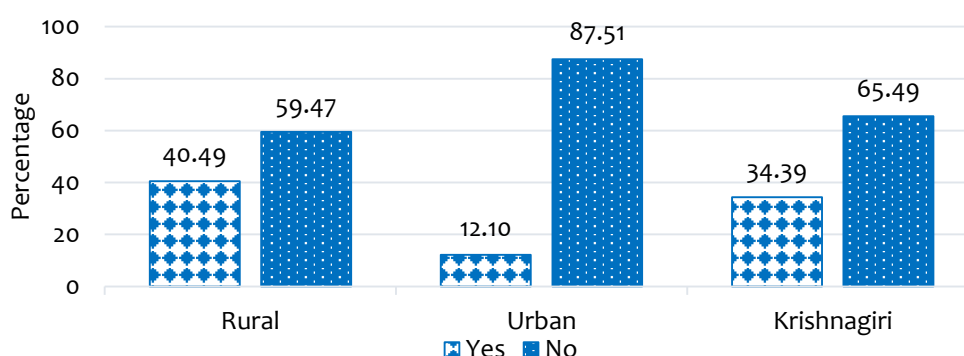


Table 3.12 shows the percentage of agricultural land-owning households in the district that depended on irrigation or rain.

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

Type of Agricultural Land	Area Type		
	Rural	Urban	Krishnagiri
Only Irrigated Agriculture Land	35.38	44.57	36.07
Only Unirrigated Agriculture Land	46.33	48.51	46.50
Both Irrigated and Unirrigated Agriculture Land	18.10	6.46	17.22
DK/RF	0.19	0.46	0.21
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.12 shows that, as per the PBS estimates, almost half the households that owned agricultural land in Krishnagiri district depended on rain-fed irrigation alone. A higher percentage of urban households owned irrigated agricultural land compared to the rural households in the district. Dug wells, canals and tanks are the major sources of irrigation in Krishnagiri district (Department of Economics and Statistics, 2023). The proportion of households having irrigated agricultural land was lower in the district at 36.07 percent compared to the state estimate of 50.03 percent.

An analysis of the social group-wise ownership of agricultural land by households in Table 3.13 showed that a relatively higher percentage of BC and MBC households owned agricultural land in the district compared to other social groups. Though 34.35 percent of the DNC households in the state-owned agricultural land, none of the nine DNC households surveyed in the district owned agricultural land.

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

Agricultural Land Ownership	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	14.70	20.69	39.89	37.95	0.00	13.55	34.39
No	85.30	79.31	59.88	61.98	100	86.45	65.49
DK/RF	0.00	0.00	0.23	0.07	0.00	0.00	0.12
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

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

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

Size of Agricultural Land (in Hectares)	Area Type		
	Rural	Urban	Krishnagiri
Marginal (0.01 - 0.99)	72.64	70.07	72.47
Small (1 - 1.99)	18.02	14.62	17.79
Semi Medium (2 - 3.99)	8.31	11.24	8.51
Medium (4 - 9.99)	0.93	3.74	1.13
Large (10 and above)	0.09	0.33	0.11
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.14 shows that 90.26 percent of the agricultural land-owning households in the district were holding marginal or small agricultural lands—less than two hectares. This

figure is higher than the state level estimate of 89.33 percent. The share of medium and large landholdings was lesser than that of the state estimates of 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 Krishnagiri district.

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

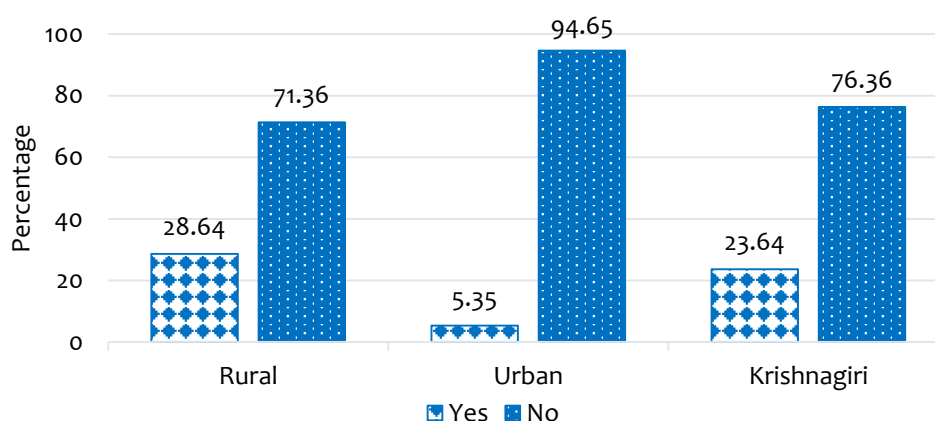
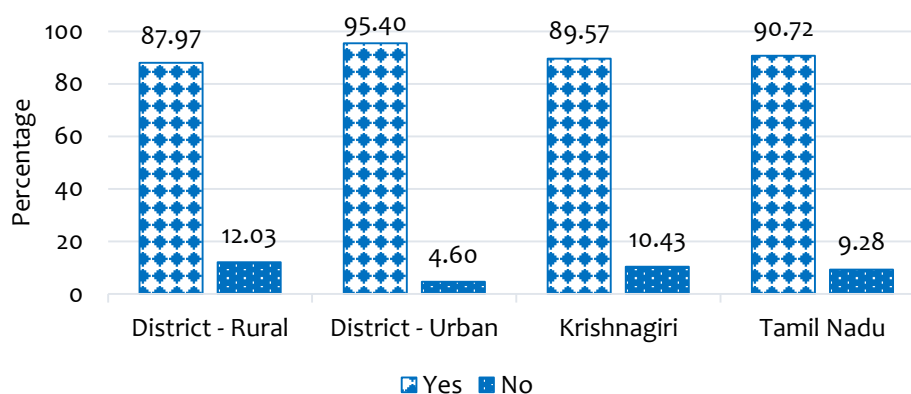


Chart 3.9 shows that 23.64 percent of the households in Krishnagiri district owned at least one agricultural, allied agricultural or fishing asset. This estimate was higher than the state estimate of 20.92 percent. The ownership of such assets was higher in rural areas than urban areas. The ownership pattern was lower in both rural and urban areas of the district compared to the state rural and urban estimates at 32.69 percent in rural and 7.67 percent in urban areas (TNHPS-PBS, 2021).

### 3.3.3 Presence of Household Assets

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

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



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

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

Household Asset	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	87.34	92.95	91.95	87.62	90.31	100	89.57
No	12.66	7.05	8.05	12.38	9.69	0.00	10.43
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

The social group-wise ownership of household assets in Krishnagiri district is given in Table 3.15. The PBS estimates showed that while all General category households owned at least one household asset, only 87.34 percent of the SC households and 87.62 percent of MBC households in the district owned any such asset. This means that around 12 percent of SC and MBC households did not even own a mobile phone.

### 3.3.4 Possession of Ration Card

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

Chart 3.11 Possession of Ration Card – Area-wise

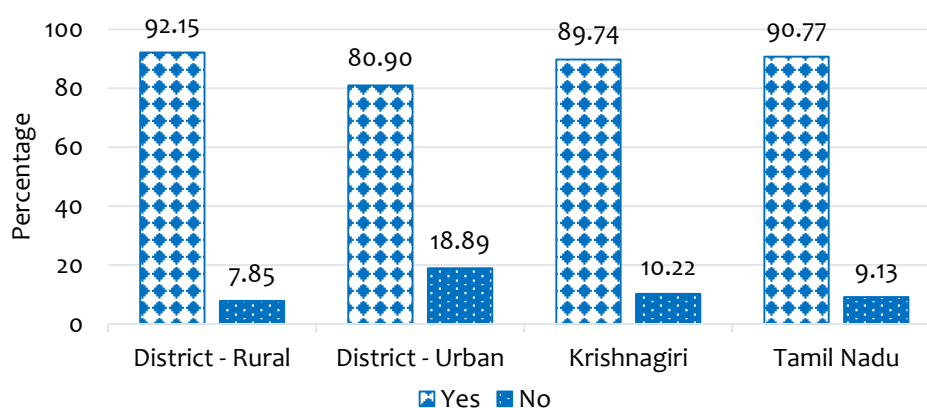


Chart 3.11 shows that the percentage of households that possessed a ration card in the district was similar to the state estimate. Within the district, a higher percentage of rural households possessed ration cards compared to the urban households.

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

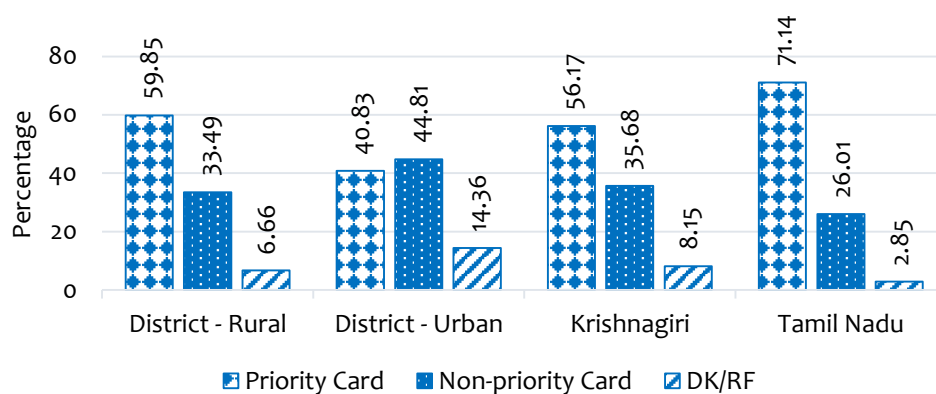
Table 3.16 Possession of Ration Card at the Household Level - Social Group-wise Percentages

Possession of Ration Card	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	90.22	89.37	88.20	91.58	100	81.52	89.74
No	9.78	10.63	11.70	8.40	0.00	18.48	10.22
DK/RF	0.00	0.00	0.10	0.02	0.00	0.00	0.05
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

### 3.3.5 Type of Ration Card

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

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



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

### 3.4 Household Income

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

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

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

Source	District - Rural	District - Urban	Krishnagiri	Tamil Nadu
Agriculture	39,541	1,12,236	44,188	61,830
Allied Agriculture	64,716	92,448	66,763	38,576
Salaried	2,14,598	2,84,068	2,39,902	2,29,857
Self Employed	1,98,170	1,58,917	1,82,041	1,47,403
Wage Labour	43,354	60,367	45,027	47,734
Other Sources	70,232	1,49,095	84,142	97,646
<b>Income from all Sources</b>	<b>1,19,209</b>	<b>2,18,806</b>	<b>1,40,340</b>	<b>1,42,752</b>

The mean annual household income of Krishnagiri district was almost on par with the state estimate of ₹1,42,752. The mean household income was higher among the households with salaried income and lower among the households that depended on agriculture and wages. Among the then 32 districts, Krishnagiri was ranked seventh in terms of mean annual household income (TNHPS-PBS, 2021).



In the year 2017-18, the mean household income in the rural areas of Krishnagiri district was ₹1,19,209, which was higher than the state rural estimate of ₹92,765 (TNHPS-PBS, 2021). Yet, the mean annual household income from agriculture was lesser due to various reasons such as high number of marginal landholders, high percentage of non-irrigated agriculture and drought during the previous years. The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that engaged in agriculture and wage labour.

In the year 2017-18, the mean household income in the urban areas of Krishnagiri district was ₹2,18,806, which was higher than the state urban estimate of ₹1,99,629 (TNHPS-PBS, 2021). The mean household income was higher among the households that depended on salaried income. Lower mean income was reported among the households that depended on wage labour.

### 3.4.2 Income Inequality in Krishnagiri District

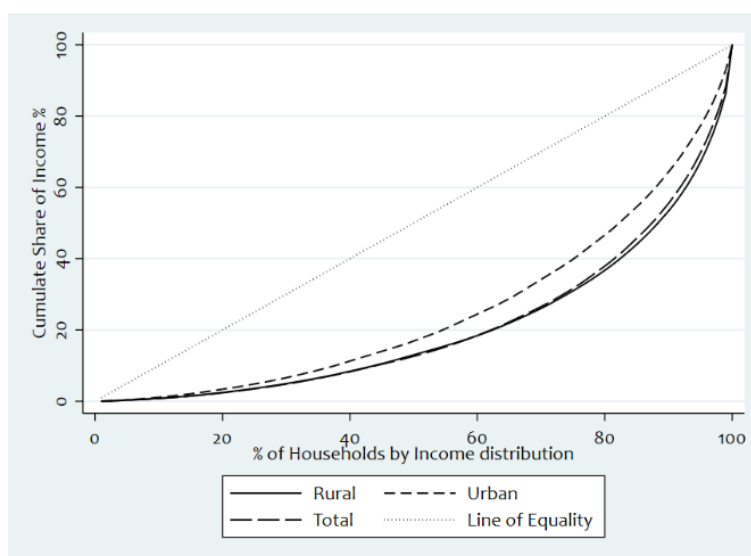
The Gini coefficient measures inequality levels in income or wealth where the coefficient value of 0 denotes perfect equality and 1 denotes perfect inequality (across households). The income inequality in Krishnagiri district (0.582) was higher than the state estimate (0.563)<sup>5</sup>. Interestingly, the income inequality across households in rural areas of the district (0.590) was found to be higher than the urban areas (0.494).

Table 3.18 Gini Coefficient of Income Inequality- Area-wise

Area	Gini Coefficient
District-Rural	0.590
District-Urban	0.494
Krishnagiri	0.582
<b>Tamil Nadu</b>	<b>0.563</b>

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

Chart 3.13 Lorenz Curve and Income Inequality



The Lorenz curve is a graphical representation of inequality in the distribution of income or wealth of households. Chart 3.13 shows that in Krishnagiri, the bottom 60 percent of the households held around 20 percent of the total income; the bottom 80 percent of households held around 35 percent of the total income and the top 20 percent of households held around 65 percent of total income.

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

Besides the present income of the households (in the year 2017-18), the PBS also investigated the households' expectation of change in income in the next five years. The expectation of a household head on the change in the household's income in the future depends on various factors such as probability of a household member's entry (or exit) to (or from) the labour market, expected possession of financial and non-financial assets and so on. These variables can capture the level of optimism—or pessimism—that each household had about their 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	Area Type			
	District-Rural	District-Urban	Krishnagiri	Tamil Nadu
Higher	46.34	62.09	49.72	50.06
Lower	7.16	3.44	6.36	8.17
About the same	35.55	21.66	32.57	31.66
DK/RF	10.95	12.81	11.35	10.11
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

While a majority of the urban households in the district expected their income to increase in the following five years, the percentage of households expecting a decline in their future

income was higher in rural areas compared to urban areas. Around one-third of the households in the district anticipated their future income to remain the same.

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

Expectation of Change in Household Income	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Higher	49.30	44.67	51.09	47.72	50.17	67.25	49.72
Lower	6.84	5.64	4.66	8.30	10.51	0.71	6.36
About the same	31.36	47.78	30.77	35.47	29.63	23.06	32.57
DK/RF	12.49	1.91	13.48	8.51	9.69	8.98	11.35
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

While more than two-thirds of the General category households in Krishnagiri district expected an increase in their future income, less than half the SC, ST and MBC households expected the same. The MBC and SC category households also reported a relatively high percentage of decreased future income.

### 3.5 Basic Infrastructure

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

#### 3.5.1 House Ownership Status

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

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

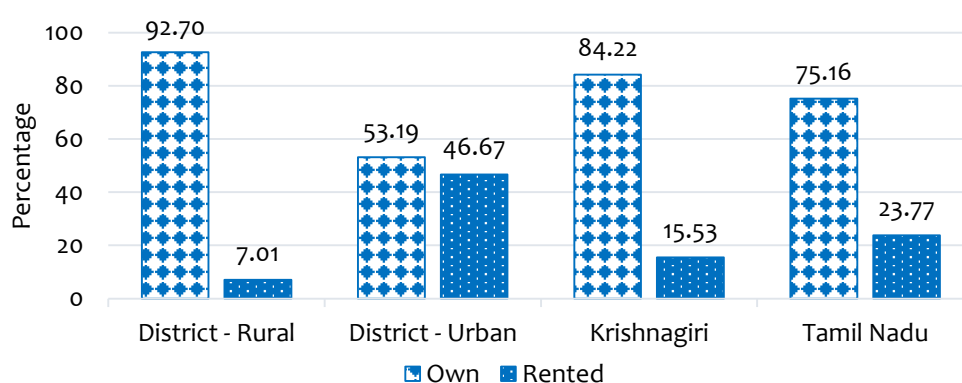


Chart 3.14 shows that the proportion of households living in their own house in the district was much higher than the state level estimate. Krishnagiri district was ranked ninth among

the then 32 districts of Tamil Nadu in terms of percentage of households living in their own house (TNHPS-PBS, 2021). While most of the households in rural areas lived in their own house, a large proportion of urban households were relying on rented houses for their stay. Only less than one percent of households were living in other houses such as 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	Krishnagiri
Own	88.53	85.59	78.96	88.86	53.89	67.92	84.22
Rented	11.34	14.41	20.86	10.77	46.11	31.60	15.53
Others	0.13	0.00	0.17	0.26	0.00	0.48	0.21
DK/RF	0.00	0.00	0.00	0.11	0.00	0.00	0.04
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.21 shows that more than 80 percent of SC, ST and MBC households in the district lived in their own house, while only around two-thirds of the General category households were doing the same.

A detailed analysis of ownership of houses showed that out of the 84.22 percent households (see Chart 3.14) that lived in an own house in the district, 13.20 percent of houses were built under a government scheme, which was lower than the state estimate of 14.12 percent (TNHPS-PBS, 2021). The social group-wise analysis of this parameter is given below.

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

House Constructed Under Government Scheme	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	47.89	41.17	5.20	5.92	0.00	0.00	13.20
No	52.11	58.83	94.78	94.05	100	100	86.78
DK/RF	0.00	0.00	0.02	0.02	0.00	0.00	0.02
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

In Krishnagiri district, SC and ST households had the highest percentage of houses built under a government scheme compared to other social groups. Though 9.4 percent of the house-owning DNC households in the state of Tamil Nadu had constructed a house under a government scheme, none of the five house-owning DNC households surveyed in Krishnagiri district had done so.

### 3.5.2 House Type

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

Chart 3.15 Type of House – Area-wise

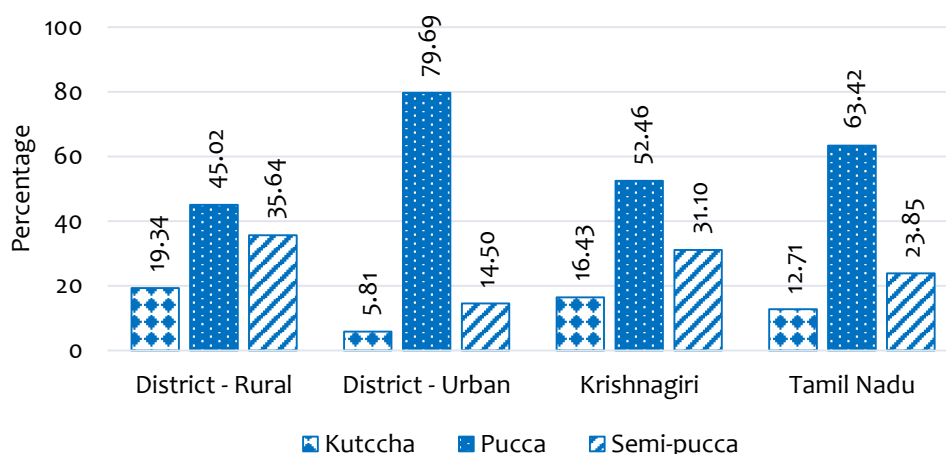


Chart 3.15 shows that more than half the households in Krishnagiri district were living in pucca houses. The district estimates on households living in pucca houses was lower than the state estimate. The percentage of urban households living in pucca houses in the district was much higher than rural households, and higher than the state urban estimate of 75.22 percent (TNHPS-PBS, 2021).

### 3.5.3 Primary Drinking Water Source

In this section, we discuss the PBS findings on the primary source of drinking water of the households in the district. The primary sources<sup>6</sup> of water are: bottled water, piped water into dwelling, piped water to yard or plot, public tap or standpipe and tube well or borehole. Other water sources include protected well, unprotected well, rainwater collection and surface water (tank/pond/river/dam).

<sup>6</sup> Primary source - Water that is availed for the greater part of the year

Chart 3.16 Primary Source of Drinking Water of Households – Area-wise

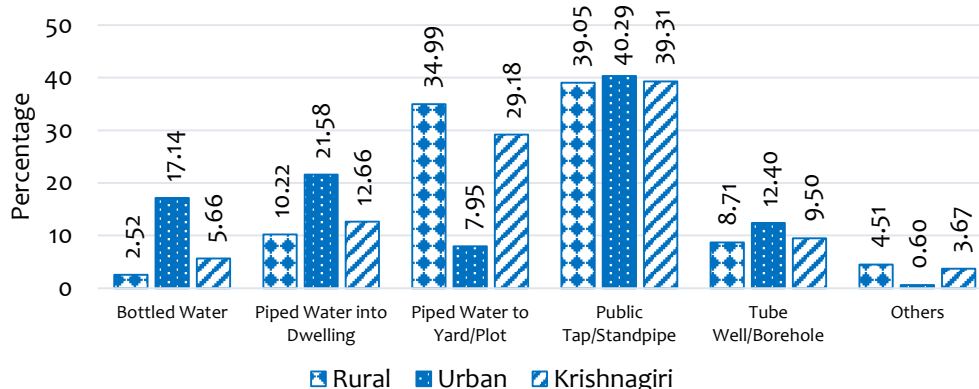


Chart 3.16 shows that 39.31 percent of households in Krishnagiri district were using public tap or standpipe as their primary source of drinking water, which is higher than the state estimate of 32.84 percent. While the state PBS estimates showed that piped water into the dwelling in urban areas at 37.02 percent and public tap/standpipe in rural areas at 44.51 percent were the primary water sources of households (TNHPS-PBS, 2021), in Krishnagiri district, public tap/standpipe were predominantly used both in urban and rural households.

### 3.5.4 Electricity

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

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

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

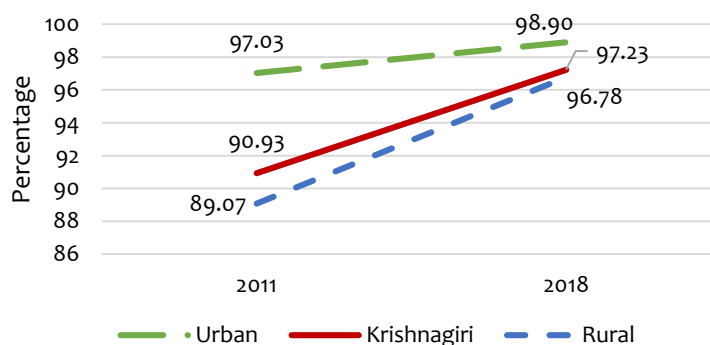


Chart 3.17 shows rapid electrification in rural areas of Krishnagiri district between 2011-2018. The rate of growth of households with electricity was higher in rural areas compared

to the urban areas. The electrification status in the district at 97.23 percent was slightly lower than the state estimates 97.6 percent (TNHPS-PBS, 2021).

### 3.5.5 Primary Cooking Fuel

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

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

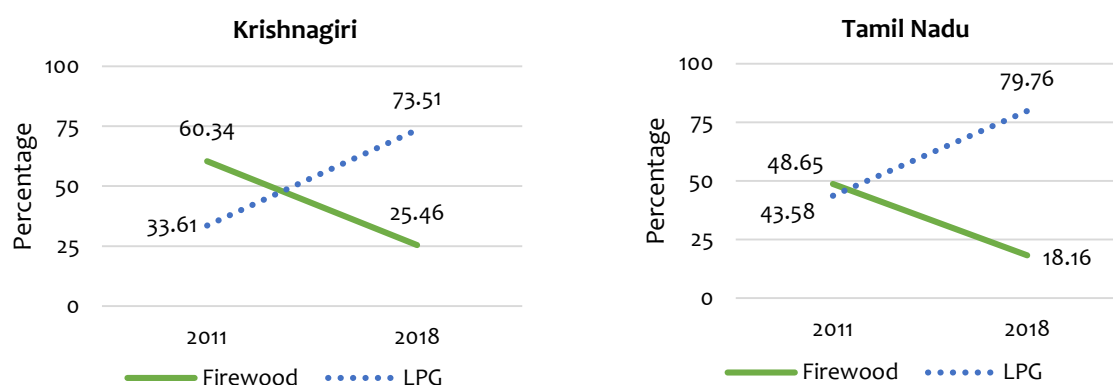


Chart 3.18 shows that, although the use of LPG as the primary cooking fuel had increased tremendously in the district from 2011 (Census 2011) to 2018 encompassing almost three quarters of the households, firewood was still used by a quarter of the households. Compared to other districts of Tamil Nadu, Krishnagiri district was ranked twentieth in terms of LPG use and ranked thirteenth in terms of firewood use as primary cooking fuel (TNHPS-PBS, 2021).

Chart 3.19 Comparison of Primary Cooking Fuel – Rural and Urban

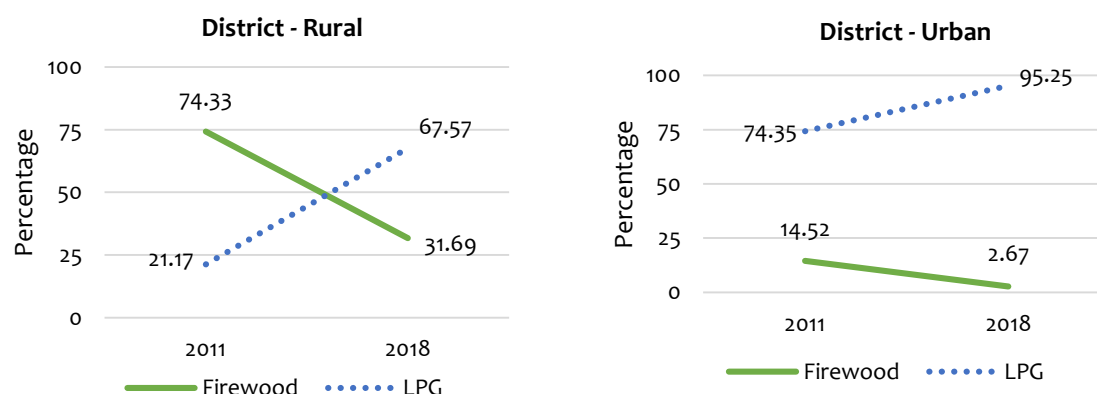


Chart 3.19 shows that the predominant fuel in rural areas in the district had changed drastically from firewood to LPG in the period 2011-18. LPG uptake had increased further in

urban areas, and that of firewood had dropped to a minuscule amount during the same period.

Table 3.23 shows the use of various fuels for cooking among households of different social groups in Krishnagiri district. While majority of General category households used LPG as the primary cooking fuel, around half of the ST households and around one-third of the SC and MBC households still used firewood as the primary cooking fuel.

*Table 3.23 Primary Cooking Fuel in Household - Social Group-Wise Percentages*

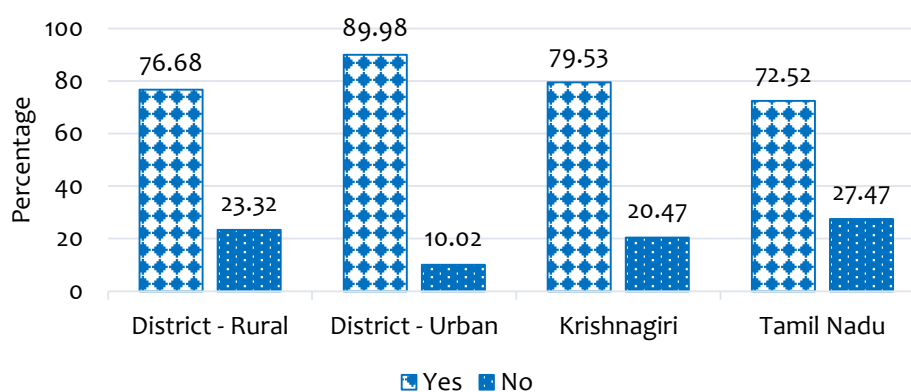
Primary Cooking Fuel	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Firewood	32.50	50.44	18.00	31.19	0.00	1.00	25.46
Kerosene	0.56	0.00	0.87	0.79	9.69	0.00	0.78
LPG	66.87	49.56	80.81	67.77	90.31	99.00	73.51
Others	0.03	0.00	0.30	0.20	0.00	0.00	0.22
DK/RF	0.03	0.00	0.02	0.05	0.00	0.00	0.04
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

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

### 3.5.6 Sanitation

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

*Chart 3.20 Presence of Latrine within the Premises of the Household – Area-wise*



The percentage of households with latrine within the premises of the house had increased from 33.02 percent in 2011 (Census, 2011) to 79.53 percent in 2018 as per the PBS estimates. Krishnagiri district was positioned seventh in the state among the 32 districts in terms of this indicator. The percentage of households equipped with latrine facilities in the district was higher than the state level estimate (TNHPS-PBS, 2021). A greater percentage of urban



households were equipped with latrine facilities compared to rural households. It is pertinent to note that almost a quarter of the rural households did not have access to a latrine within their house premises.

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

Latrine within the House Premises	Social Group						
	SC	ST	BC	MBC	DNC	General	Krishnagiri
Yes	74.09	62.84	85.67	74.92	100	98.14	79.53
No	25.91	37.16	14.33	25.08	0.00	1.86	20.47
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 3.24 shows the presence of latrine within the premises of the household across various social groups. The percentages of SC, ST, and MBC households with latrine access in the district were higher than their respective state level estimates at 52.2 percent, 56.0 percent and 67.5 percent respectively (TNHPS-PBS, 2021). Yet, 37.16 percent of the ST households and about a quarter of SC and MBC households did not have a latrine within the house premises. All the nine DNC households surveyed in the district had a latrine within their house premises.

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

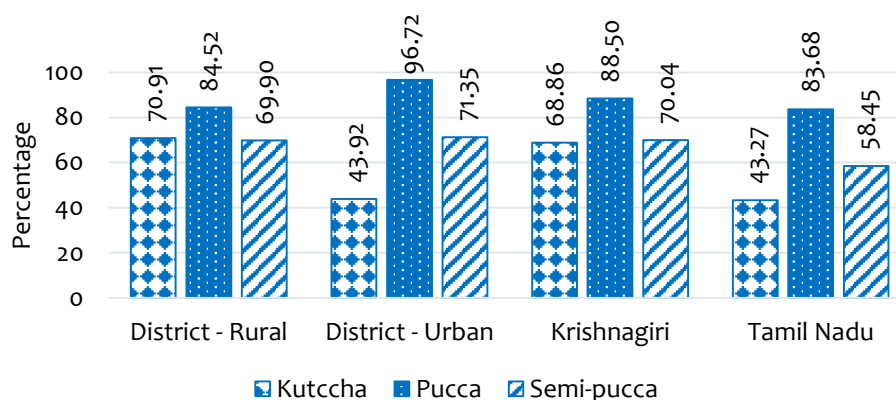


Chart 3.21 shows that the percentage of pucca houses with latrine facilities was higher than for semi-pucca and kutccha houses in the district. The percentages of latrine facilities in kutccha, pucca and semi-pucca houses in the district were higher than their respective state estimates. A higher percentage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

The percentage of total households in the district following open defecation had declined considerably from 64.25 percent in 2011 (Census, 2011) to 19.51 percent in 2018. As per the state PBS report, Krishnagiri district was ranked twenty-second in terms of the percentage of total households following open defecation. The alternative practices of defecation followed by 20.47 percent of the district’s households (see Chart 3.20) that did not have a latrine within the premises of the house is shown in Chart 3.22.

*Chart 3.22 Alternate Practices of Defecation by the Households without Latrine – Area-wise*

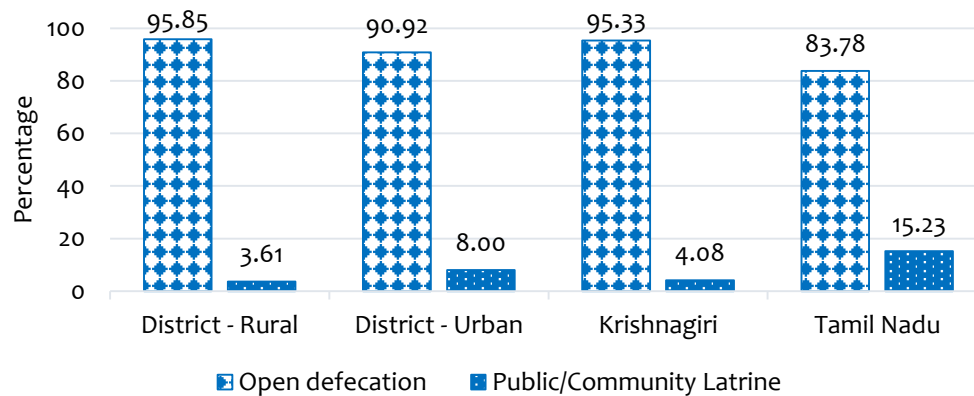


Chart 3.22 shows that 95.33 percent of households without latrine within the premises of the house in the district were following open defecation, which was significantly higher than the state level estimate. The practice of open defecation by these households was higher in rural areas compared to urban areas of the district.

## 4. Conclusions and Recommendations

The Pre-Baseline Survey (PBS) 2018-19 of Krishnagiri district was conducted from the sample of 6,470 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.

Krishnagiri district was among the top ten districts in terms of mean annual household income, agricultural land ownership of households and the percentage of households living in their own house. The ownership pattern of agricultural, allied agricultural and fishing assets was higher than the state estimate. Krishnagiri being predominantly a rural district, performs well in agricultural related indicators.

The district ranks twenty-seventh out of 32 in literacy, with a wide gender gap, particularly pronounced in rural areas. A significant portion of females are homemakers, while many males are students among those who are not in the labour force. About one-fifth of the population lacks formal education, with 90% lacking functional literacy. Social groups like ST, SC, and MBC households face lower educational attainment, necessitating targeted policies to address disparities.

Similarly, in employment, female work participation continued to be significantly lower than that for males. A social group-wise pattern in work type was also observed. The SC and ST population were largely employed as casual labourers in the service and agricultural sectors, which yielded lower incomes, compared to the General and BC categories that were predominantly involved in salaried work in the private sector. Policy interventions targeted at upskilling these marginalized sections to encourage their entry into the formal sector may help reduce these disparities.

Krishnagiri was ranked twentieth in terms of households using LPG as the primary cooking fuel and thirteenth in terms of firewood usage with 25 percent of households in the district still primarily using firewood. There was a social group disparity in fuel use with more than half the ST households and around one-third of SC households using firewood as the main cooking fuel. Policies targeted specifically towards this marginalized group could help increase their adoption of LPG. Despite the reduction in open defecation from 2011 to 2018, around 20 percent of households in the district still practiced open defecation. Social group-wise targeting of policy might also be essential for promoting latrine facilities within the house premises as its absence was especially high among ST and SC households in the district.

Policy intervention to enhance education accessibility for all households and create more job opportunities. Despite the rise in LPG usage from 2011 to 2018, a quarter of households still rely on firewood as their primary cooking fuel. Implementing measures to promote sustained usage of LPG could decrease firewood consumption, potentially improving women's health. The district has a higher proportion of Kutcha and semi-pucca houses compared to the state average, indicating a need for better implementation of targeted housing policies. Additionally, attention should be directed towards improving other infrastructural aspects.

## References

- Census. (2011). *District Census Handbook - Series-34 - Part XII-B - Krishnagiri*. Directorate of Census Operations. Government of Tamil Nadu.  
<https://censusindia.gov.in/nada/index.php/catalog/1149>
- Chandrasekhar, S., Naraparaju, K., & Sharma, A. (2021). Spatial Disparities in Household Earnings in India: Role of Urbanization, Sectoral Inequalities, and Rural-Urban Differences. *Indira Gandhi Institute of Development Research*, WP-2021-009.  
<http://www.igidr.ac.in/pdf/publication/WP-2021-009.pdf>
- Das, S., Jain-Chandra, S., Kochhar, K., & Kumar, N. (2015). Women Workers in India: Why So Few Among So Many? *International Monetary Fund*, WP/15/55.  
<https://www.imf.org/external/pubs/ft/wp/2015/wp1555.pdf>
- Department of Economics and Statistics. (2017). *Statistical Hand Book of Tamil Nadu-2016-17*. Government of Tamil Nadu.
- Department of Economics and Statistics. (2023). *Statistical Hand Book of Tamil Nadu-2020-21*. Government of Tamil Nadu.
- Desai, S. (2017, March 7). *Declining female labour force participation in rural India: The demand side*. Ideas for India. <https://www.ideasforindia.in/topics/social-identity/declining-female-labour-force-participation-in-rural-india-the-demand-side.html>
- Desai, S., & Joshi, O. (2019). The Paradox of Declining Female Work Participation in an Era of Economic Growth. *The Indian Journal of Labour Economics*, 62, 55–71.  
<https://doi.org/10.1007/s41027-019-00162-z>
- National Statistical Office. (2019). *Annual Report, Periodic Labour Force Survey, July 2017-June 2018*. [https://mospi.gov.in/sites/default/files/publication\\_reports/Annual%20Report%2C%20PLFS%202017-18\\_31052019.pdf?download=1](https://mospi.gov.in/sites/default/files/publication_reports/Annual%20Report%2C%20PLFS%202017-18_31052019.pdf?download=1)
- Tamil Nadu State Planning Commission. (2017). *Tamil Nadu Human Development Report - 2017*. Government of Tamil Nadu. <https://spc.tn.gov.in/tnhdr2017.html>
- TNHPS-PBS. (2021). *Tamil Nadu Household Panel Survey- Pre-Baseline Survey: 2018-19*. Draft report submitted to the Government of Tamil Nadu.

**A collaborative project between  
Department of Economics and Statistics &  
Madras Institute of Development Studies**

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.



For more information, please contact:  
TNHPS Research Manager  
Madras Institute of Development Studies  
79, Second Main Road, Gandhi Nagar, Adyar  
Chennai 600020 Ph: 24411574 / 24412589  
[www.mids.ac.in](http://www.mids.ac.in)  
Email : [researchmanager.tnhps@gmail.com](mailto:researchmanager.tnhps@gmail.com)