

# A Geographical Analysis of Occupational Pattern in Namakkal District, Tamil Nadu

S. Vinothkanna\*, V. Emayavaramban, K. Kannadasan

Department of Geography, Madurai Kamaraj University, Madurai, Tamil Nadu, India

## ABSTRACT

The surface of the earth has different inhabitants. Man is one of the important inhabitants in the development of any kind of activities in various forms of earth surface. The development of human civilization the work based communities are originated. Demographic study's is much studied phenomenon now a day due to its importance that has been given by researchers throughout the world and in India. India which is often portrayed as an exploding middle class economy has been undergoing this change for a few decades and has brought drastic outcome in the country. Accordingly the government has started to show much interest and has been implementing various changes in population policies accordingly. The word demography can be defined as statistical description and analysis of human population. The population study can plays in many roles. For this in case of Population Censuses both main workers and marginal workers are considered while in case of NSSO (National Sample Survey Organization) Employment-Unemployment surveys, both the principal and subsidiary activity status are to be taken into consideration and there was not much variation between the proportions of elderly persons working as obtained from these two sources for almost all the population categories. The occupational pattern has the important aspects, not only in economic context but in geographic perspective also. The area taken for this study is Namakkal district in Tamil Nadu. In this analysis the main workers population is considered and again this is sub divided into agricultural labourers, cultivators, household Industrial workers and other workers. From the analysis it is identified that the household industrial labourers and other workers share is low compared to the state share. The share of cultivators and agricultural labourers are comparatively higher to the state proportion. The result of the analysis is brought out through maps and is prepared by using Arc GIS platform.

**Keywords:** Labourers, Main workers, Statistics, Distribution, NSSO, GIS

## I. INTRODUCTION

A population census is the major source of data. A population census is of great relevance to the economics, political and socio-cultural planning of a country. Reliable and detailed data on the size, distribution and socio-economic and demographic characteristics of a country's population is required for planning, policy intervention and monitoring of development goals (Census Enumerator's Manual, 2006). Occupation is a very significant social attribute of population. Occupational structure plays an important role in a diversity of studies, including those related to the level of economic development and social inequalities. Since occupation reflects the individual's position in a technical division of labor, it is taken to be a central determinant of current and future economic

opportunities in modern societies (Mills, 1956; Rose and Pevallin, 2001).

Mukherjee and Sing (1954) have defined occupation as, "The name of the function which a person performs by engaging himself in that particular branch of gainful economic activity which is his industry". The term occupation structure indicates the unitary relationship pattern of the three occupational components of the working population. These components include primary, secondary and tertiary activities of urban settlements. (Kadam, P. B and Rathod, S.B (2013). Working force is the economically active part of the population engaged in the production of goods and services. The other part is of economically non-active category called non-workers. The size and spatial pattern of the working force

provides the basis for discussing occupational structure (Ram Pratap Singh, 2015).

## II. METHODS AND MATERIAL

### 1. Study Area

The Namakkal District lies in the interior part of Tamil Nadu and extends between 11°00' to 11°36'10" north Latitudes and 77°40' to 78°30'00" east longitudes. The total geographical area of the district is 3429.3sq.km, which is divided into five taluks, namely, Namakkal, Tiruchengode, Paramathi, Rasipuram and Kollimalai. Administratively Namakkal district has 15 blocks and 396 panchayat villages. The district area represents 2.64% of the total area of Tamil Nadu state. The major soil types found in this district are black soil, brown soil, alluvial soil and mixed soil. The major rivers flowing in the Namakkal district are Cauvery and Thirumanimuthar. The major crops found in this district are Groundnut, Paddy, Cotton, Cumbu, Tapioca, Ragi, Pulses and Millets. The block is characterised by sub-tropical climate with moderate temperature. The maximum temperature ranges from 24° C to 39° C and the minimum is 13° C to 28° C. There is no major reservoir or tank in this block.

### 2. Aim and Objective

The main aim of the study is to study the spatial pattern of the occupational characters in the Rasipuram block. To achieve this aim following objectives are adopted.

1. To identify the spatial pattern of work participation rate in the block.
2. To analyze the different occupational characters in the block.

### 3. Data Base and Methodology

The base map has been prepared by using Survey of India toposheet in the scale of 1:50000. The block map is collected from the Tamil Nadu government web GIS portal and Census of India statistical handbook of Namakkal district then geo-referenced and converted into vector format by using GIS software. The data regarding the occupational characteristics are collected from the census of India 2011. The simple statistical

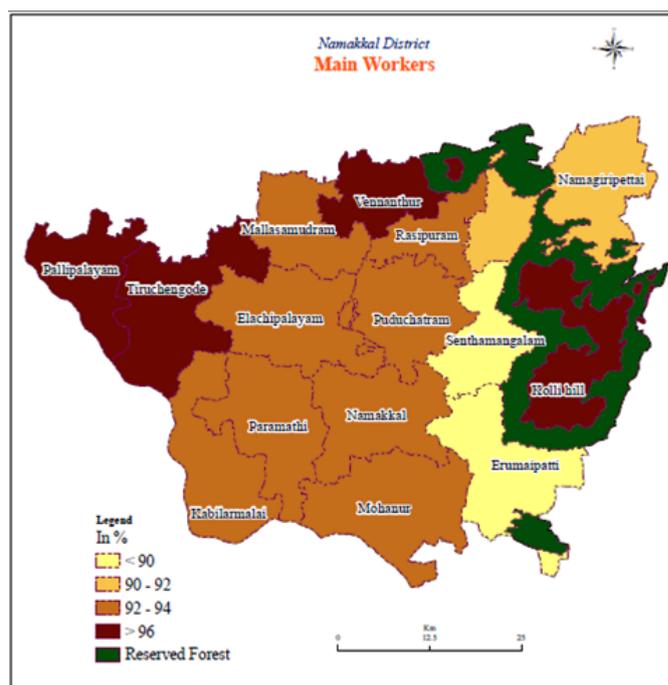
technique has been applied and the results are brought down cartographically by using Arc GIS.

## III. RESULTS AND DISCUSSION

In this present analysis I have included all the aspects of occupational characters found in villages and urban centers such as municipality and town panchayat to study the urban and rural differences over the study area.

### A. Main Workers

A person is considered as a main worker or full time worker, if he/she had worked for a minimum of 183 days or more. However, the work participation rate varies from one block to another block. Among the total working population, 93.4% are main workers which is comparatively higher than the state average of 85%. The male main worker is 95.07% and a female main worker in the district is 91.03 % during 2011 census. (Table.)



The main workers population is very high in Vennandur block where it accounts 96% and low in Sendhamangalam (89%) among the blocks in the district. The blocks having highest share in main workers population are Vennandur (96%), Tiruchengode (96.04%), Pallipalayam (95.5%) and Kolli hill (94.1%). The lowest main workers population is found in Sendhamangalam (88.8%) and Erumaipatti (88.6%). The share between 90% – 92% is found only in

Namagiripettai block (90.6%). All other blocks of the district are found between the share of 92% - 94%. **(Fig.)** The main workers are further categorized in to 4 divisions such as cultivators, agricultural labourers, household industry workers and other workers. The percentage share of other workers is 50.4% which is high in the district followed by agricultural labourers (27.2%), cultivators (18.2%) and house hold industry workers (4.2%). The differences in the share of main workers are shown in the table.

**Table 1 – Main Workers - 2011 Namakkal District**

Sl. No	Block	Workers	Male	Female
1	Elachipalayam	92.9	95.0	90.2
2	Erumaipatti	88.8	91.6	84.9
3	Kabilarmalai	92.5	93.8	90.7
4	Kollimalai	94.2	95.1	93.3
5	Mallasamudram	93.9	95.1	92.4
6	Mohanur	93.8	95.7	91.2
7	Namagiripet	90.6	92.3	88.5
8	Namakkal	93.8	96.1	89.3
9	Pallipalayam	95.6	96.6	94.0
10	Paramathivelur	92.8	93.7	91.4
11	Puduchatram	93.1	94.7	91.3
12	Rasipuram	93.0	94.7	90.2
13	Sendhamangalam	88.6	91.1	85.2
14	Tiruchengode	96.0	97.2	94.1
15	Vennandur	96.1	97.5	94.4
	<b>Total</b>	<b>93.4</b>	<b>95.1</b>	<b>91.0</b>

Source: Compiled by Investigator from 2011 census report, Namakkal District

### B. Cultivators

A person is considered as cultivator, if he/she is engaged in cultivation of land, owned or taken on lease from government or from private persons of institutions for payment in money. The percentage share of the cultivators is 18.2 % which is comparatively higher than the state main workers cultivator of 12.9%. Among the cultivators, Kolli hill block have very high share of cultivators in the district accounts 71.6% which is very high compared to the district average followed by Namagiripet (29.5%) **(Table.)** The cultivators are very low in Pallipalayam and Namakkal block where it accounts only 5.5% and 9.9% respectively. All other blocks in the district have considerable percentage of cultivators **(Fig.)**

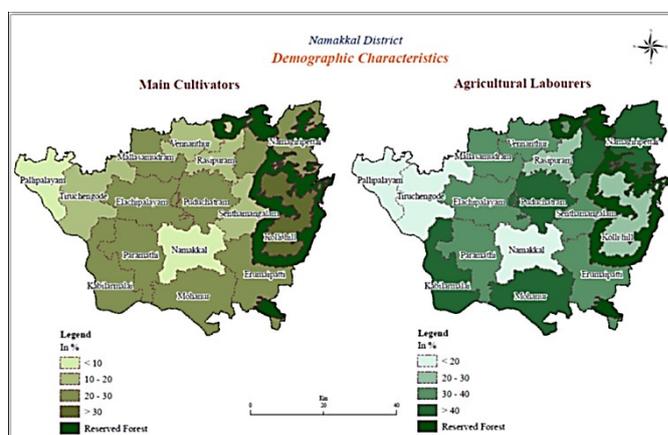
### C. Agricultural Labourers

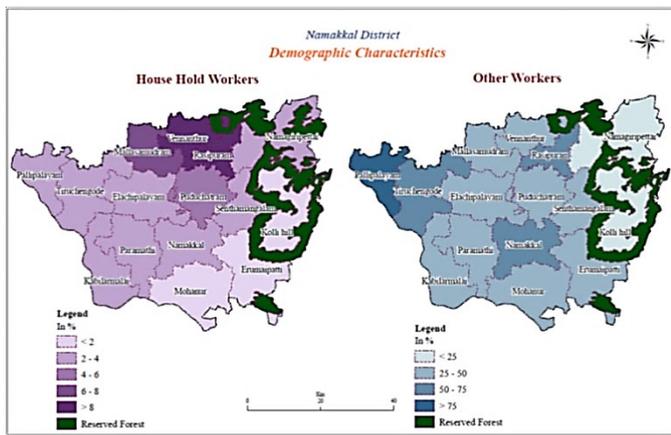
A person who works on another person’s land for wages, kind or share should be considered as agricultural worker or labourer. He/she merely works on another person’s land for wages. Agricultural labourers have no right or contract on land on which he/she works. In general, the proportion of workers engaged as main agricultural labourer as a whole in the district is 35% which is high compared to the state average share of 29.2%. Among the main agricultural labourers, Kabilarmalai block have the maximum share among the blocks in the distict (44.8%) followed by Mohanur (43.5%), Namagiripet (42.9%) and Puduchatram (40.2%) **(Table.)** The blocks having the share of less than 20% is found in Pallipalayam (8.2%), Tiruchengode (13.4%) and Namakkal (16.1%). All other blocks in the district have considerable share of population to the district **(Fig.)**

### D. Household Industrial workers

The proportion of workers engaged in household industry has the least share of occupational structure of the district. The average share of house hold industry workers in the district is 3.4%, whereas Tamil Nadu State average is 4.2% as per 2011 census. This indicates main house hold industry workers are low in the district. Vennandur block (16.7%) and Rasipuram block (10%) have the maximum share of household industry among the blocks in the district and lowest is found in Kolli hill where it accounts only 0.6% **(Table.)**

The other block having the share of less than 2% is found in Mohanur (2%) and Erumaipatti block (1.4%). All other blocks in the district have considerable share of house hold workers in the district **(Fig.)**





### E. Other Workers

Other workers include the workers engaged not only in trade and commerce, transport, administration storage and communication and other services but also engaged in large scale manufacturing activities. These types of work are basically more in urban areas. The share of main other workers is high in Namakkal district compared to the other ancillary category among the main workers. The district average share of main other workers is 33.7% which is lower than the state average of 53.7%. The other workers category is concentrated more in Pallipalayam block (82.5%) (Table.) The lowest share is noticed in Kolli hill block (6.9%) and Namagiripet (23.6%). Except Namakkal (71.9%), Tiruchengode (71.6%) and Rasipuram (56.5%) all other blocks in district are found between the shares of 25% to 50% (Fig.)

**Table 2.** Occupational Structure – 2011, Namakkal District

No	Block	Cultivators	Agricultural Labourers	Household Industry workers	Other Workers
1	Elachipalayam	23.1	31.5	3.0	42.3
2	Erumaipatti	25.4	36.7	1.4	36.5
3	Kabilarmalai	23.9	44.8	2.2	29.1
4	Kollimalai	71.6	21.0	0.6	6.9
5	Mallasamudram	22.5	33.7	6.8	36.9
6	Mohanur	21.3	43.5	2.0	33.2
7	Namagiripet	29.5	42.9	3.7	23.9
8	Namakkal	9.9	16.1	2.1	71.9
9	Pallipalayam	5.5	8.2	3.7	82.5

10	Paramathivelur	21.0	37.0	2.4	39.6
11	Puduchatram	22.8	40.2	5.0	32.0
12	Rasipuram	10.4	23.1	10.0	56.5
13	Sendhamangalam	16.9	39.4	2.2	41.5
14	Tiruchengode	12.2	13.4	2.8	71.6
15	Vennandur	17.2	32.3	16.7	33.9
	Total	26.4	35.0	3.4	33.7

Source: Compiled by Investigator from 2011 census report, Namakkal District

### IV. CONCLUSION

The proportion of main workers population in the district is higher than the state proportion. The average share of cultivators to the total main workers and agricultural labourers is about 26% and 35 % respectively which is higher than the state average. The average share of house hold industry workers in the district is 3.4% and other workers participation rate is 33.7% When considering to the state proportion household industry workers and other workers rate are comparatively lower than the state average. This kind of occupational structure analysis will bring a clear picture about the area and it will be helpful for the government to take necessary steps to initiate primary, secondary and tertiary activities where ever it is possible. GIS play a major role to provide solution to this kind of analysis.

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