RESEARCH FRONT

ISSN
(Print) 2320 – 6446, (Online) 2320 – 8341

SPATIAL PATTERNS OF MALE-FEMALE DENSITY IN AHMADNAGAR DISTRICT, MAHARASHTRA

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ABSTRACT

In this paper attempt is made to comprehensive study of male and female population density in the Ahmadnagar district during 2011. Ongoing study is mainly based on secondary sources of data which is collected form Primary Census Abstract of Ahmadnagar District, 2011. Density is an expression of the ratio between population and land area. Arithmetic density is the most commonly used measure of population density. The concept of population density is one of the important factors used to determine population distribution, growth and migration. Density of population depends on many physical and human factors, like as physiography, climate, rainfall, soil, drainage pattern, economic resources, stage of economic growth and so on. It is clear from the study that there is found close relationship in between relief feature, climate, rainfall, soil, availability of water, transportation network, economic activities and distribution of population. Further, the highest concentration of population was found in central part of the district, high and moderate in the northern part and relatively low was found in southern part of district.

Key Words: Population Density, Population Distribution, Region, Economic Growth.

1. INTRODUCTION

Population density is one of the significant measures of population studies. Population density refers to the total population of a particular region for per unit area. The term density of population refers to a ratio between population and land area (Chandna, 2009). There are different types of density, in which Arithmetic Density is the most commonly used measure of population density (Hassan, 2009). It is expressed as the number of people divided by the total area. It denotes degree of population concentration and is generally expressed in terms of persons per sq. km. area. Clarke (1972) denoted that the concept of density of population is most revealing and is a useful tool in the analysis of the diversity of man's distribution in space. Mehta (1973) analysed the spatial distribution of population in Rajasthan and found that the intensity of cropping was instrumental in spatial variations in population distribution in the state. According to Shinde and Shrikhande (1981), the productivity of the land and the security in agriculture has great influence upon the distribution and the density of rural population. The heavy concentration of rural population is found in river valleys. The regional variation in the distribution and density of population is largely affected by physical environment, socio-economic condition, cultural patterns and past history of area.

2. OBJECTIVES

In this paper attempt is made to comprehensive study of male and female population density in the Ahmadnagar district of Maharashtra during 2011.

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3. STUDY REGION

Ahmednagar district is selected for study purpose (Fig. 1). It is situated partly in the upper Godavari basin and partly in the Bhima basin occupying a somewhat central position in the Maharashtra state. It lies between 18^0 2' and 19^0 9' north latitude and 73^0 9' and 75^0 5' east longitude. Topographically the district can be divided in to three parts viz. The Sahyadri ranges, Plateau region and Bhima, Godavari basins (Pawar, 2013).

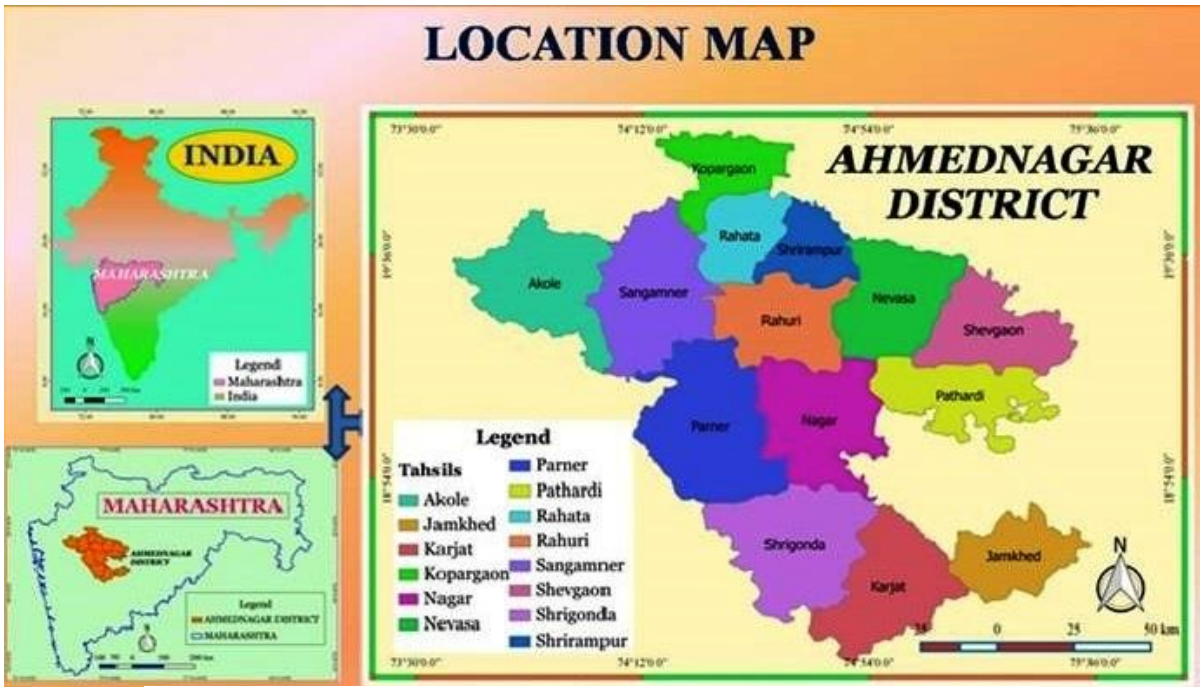

Fig.1 Location Map of Ahmednagar District

4. DATABASE AND METHODOLOGY

The present study is entirely based on secondary data which is collected from Primary Census Abstract of Ahmadnagar District, 2011. The collected data is processed and presented in the form of choropleth maps. Density is an expression of the ratio between population and land area. Arithmetic density is the most commonly used measure of population density and it is expressed as follows:

$$\text{Arithmetic Density} = \frac{\text{Total Population}}{\text{Total Area (in Sq. km.)}}$$

5.0 DENSITY OF POPULATION, 2011

5.1 Male and Female Population Density, 2011

The general population density was found 261 persons per sq. km. (Census 2011) in the study area. The male and female population density was 135 and 126 persons per sq. km. respectively. On the basis of population density, study area has been divided into 5 different groups (Table 1 and Fig. 2) as follow.

I. Very high density (Above 235 persons per sq. km.)
II. High density (190 to 235 persons per sq. km.)

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III. Moderate density (145 to 190 persons per sq. km.)
IV. Low density (100 to 145 persons per sq. km.)
V. Very low density (Below 100 persons per sq. km.)

I. Very High Population Density

Only Shrirampur tahsil was recorded with very high density of male and female population i.e. 257 and 247 persons per sq.km. It is because of some of the area of Shrirampur tahsil was merged in Rahata tahsil and also it was industrialized, urbanized, agriculturally developed tahsils in the district.

II. High Population Density

Both the male and female population density was found high in Nagar, Rahata and Kopargaon tahsil. In these tahsil, male population density was found 221, 218 and 215 persons per sq. km. respectively, whereas female population density was 205, 205 and 202 respectively. High density of population found in these tahsils due to the plain and fertile land with availability of irrigation facilities, infrastructural facilities and also found industrialization, urbanization and in migration.

Table 1

Ahmadnagar District: Tahsil-Wise Male and Female Population Density, 2011

Sr. No.	Tahsil	Area in sq. km.	Density (persons per sq. km.)		
			Total	Male	Female
1	Akole	1505.08	194	98	96
2	Sangamner	1705.06	286	147	139
3	Kopargaon	725.16	417	215	202
4	Rahata	759.19	422	218	205
5	Shrirampur	569.87	505	257	247
6	Nevasa	1343.43	266	138	129
7	Shevgaon	1031.85	238	122	116
8	Pathardi	1214.1	213	110	102
9	Nagar	1605.74	426	221	205
10	Rahuri	1035.11	312	161	151
11	Parner	1930.28	142	73	69
12	Shrigonda	1603.81	197	102	95
13	Karjat	1503.61	157	82	75
14	Jamkhed	878.62	180	94	86
District Average		**17410.91**	**261**	**135**	**126**
SD		**417.97**	**117**	**60**	**57**

Source: Primary Census Abstract of Ahmadnagar District, 2011

ISSN
(Print) 2320 – 6446, (Online) 2320 – 8341

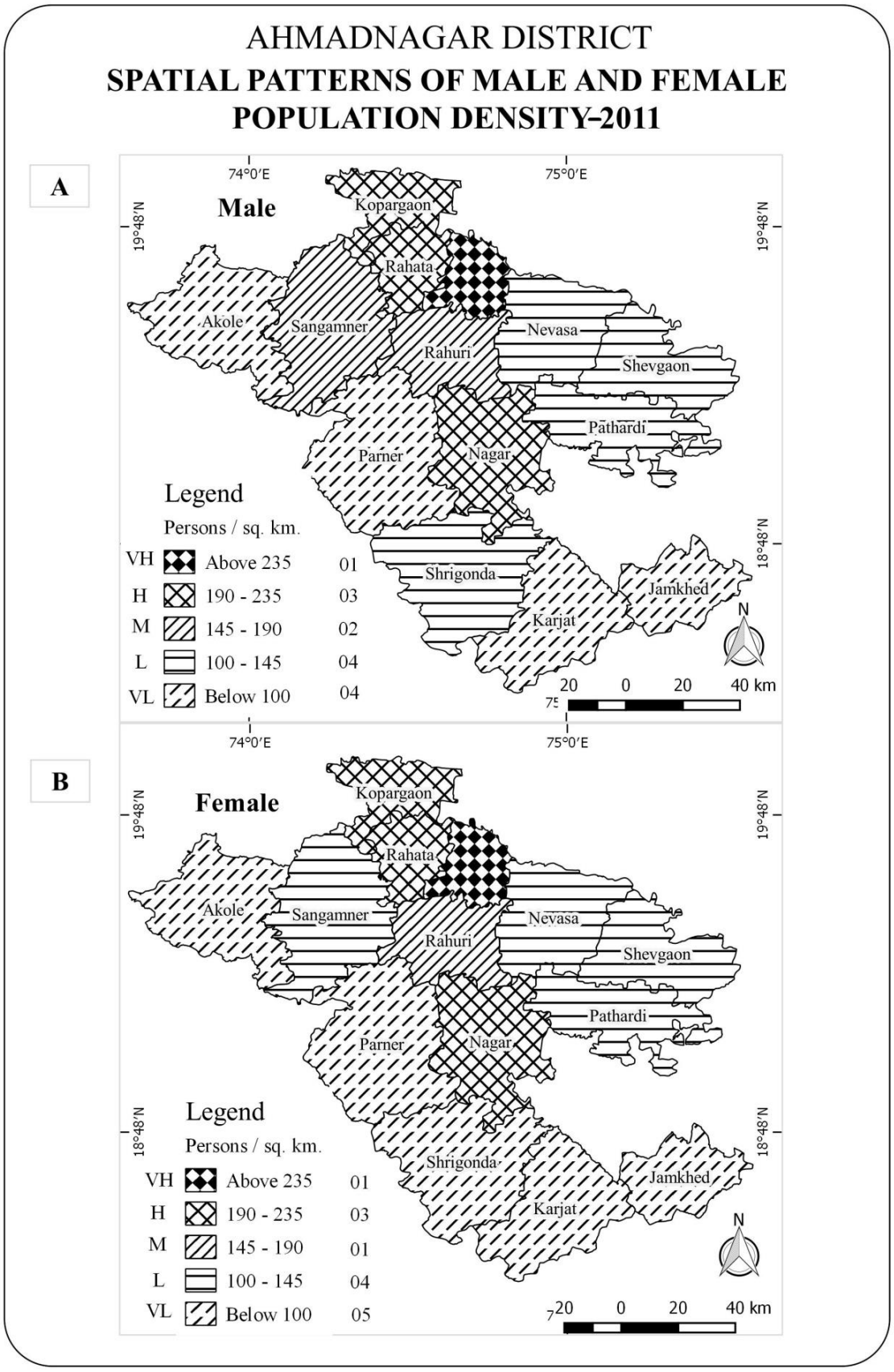

Fig. 2

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III. Moderate Population Density

Moderate male population density was observed in Rahuri and Sangamner tahsil with 161 and 147 persons per sq. km., while moderate female population density was observed in Rahuri tahsil only i.e. 151 persons per sq. km. Rahuri tahsil was agriculturally sound, urbanized and having agro-based industries, vicinity of Ahmadnagar district and MIDC's. Sangamner tahsil was also observed with the same background.

IV. Low Population Density

Nevasa, Shevgaon, Pathardi, and Shrigonda tahsil was recorded with the low density of male population, with 138, 122, 110 and 102 persons per sq. km. respectively. On the other hand, Sangamner, Nevasa, Shevgaon and Pathardi tahsil was recorded with low density of female population with 139, 129, 116 and 102 persons per sq. km. respectively. It may be due to hilly undulating terrain of Sangamner tahsil, drought-prone area, uncertain rainfall, less employment, infertile soil, less proportion of arable land and inaccessibility in the remaining tahsils.

V. Very Low Population Density

Very low level density of male population was noticed in Akole, Parner, Karjat and Jamkhed tahsil, whereas very low density of female population was noticed in Akole, Parner, Shrigonda, Karjat and Jamkhed tahsil. The very low density was observed in these tahsil due to undulating topography, drought affected area, less irrigation facilities, less employment opportunities and also shortage of basic drinking water in late winter and thereafter.

6. CONCLUSION

Present analysis reveals that there are wide variations in the distribution and density of population in different tahsils of the study area. Abnormally high density of population has recorded in Shrirampur tahsil which is 446 persons per sq. km. This is because of the concentration of industries, transportation and communication facilities and agricultural development in this tashil. Another one 25 villages are transferred from Shrirampur for the formation of Rahata tahsil during 2001, which leads to decrease in its area. From the above discussion it is clear that there is found close relationship in between relief feature, climate, rainfall, soil, availability of water, transportation network, economic activities and distribution of population. Hilly, plateau, drought pone and economically backward tahsils like Akole, Parner, Karjat, Jamkhed, Pathardi shows densities much lower than the district average. The impact of accessibility and transportation is also reflected the high population density was found along the river side and along the road side. The highest concentration of population was found in central part of the district, high and moderate in the northern part and relatively low was found in southern part of district.

REFERENCES

1. Chandna, R. C. (2009): "Geography of Population", Kalyani Publishers, New Delhi, pp. 37.
2. Clarke, J. I. (1972): "Population Geography", Pergamon Press, Oxford, p. 29.

ISSN
(Print) 2320 – 6446, (Online) 2320 – 8341

3. Hassan, M.I. (2009): Population Geography, Rawat Publications, Jaipur, pp.40-41.
4. Mehta, B. C. (1973): "Spatial Distribution of Population in Rajasthan", The *National Geographical Journal of India*, Vol. XIX, No.3 &4, pp.149-57.
5. Pawar, S. N. (2013): "Literacy Differentials in Ahmadnagar district of Maharashtra", *Golden Research Thoughts*, Vol.2 (12), pp.1-6.
6. Primary Census Abstract of Ahmadnagar District, 2011
7. Shinde, S. D. and Shrikhande, S. S. (1981): "A Spatial analysis of Rural Population of Maharashtra State", *The Deccan Geographer*, Vol. XIX, No.2&3, pp.90-94.