

A Study of Population Structure of Nandurbar District, M.S., India

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Abstract

The present paper embodies a study of population structure and describes the demographic features of Nandurbar district located in the North-West part of Maharashtra, on the State boundaries of Maharashtra, Gujarat and Madhya Pradesh. The study utilizes the decadal data obtained from the socio-economic review of Nandurbar district for the period from 1961 to 2011 and shows that, there was an increasing trend of both urban and rural population density in the study area. The population density in the district had always remained low as compared to the density of population in Maharashtra. In rural area, it was found low as compared to the urban area. The literacy of population had increased consistently. As compared to male population, the number of females was always remained low. There were large spatio-temporal variations in the distribution of population in the study area.

KEYWORDS: Density, Growth Rate, Literacy, Sex Ratio

INTRODUCTION

Despite debates on the linkages between population and development, studies have shown that issues related to population go beyond its size. The inter linkages between components of population such as age, structural composition, density, distribution and its characteristics must be considered in the context of sustainable development and human wellbeing. The sources of components of change are the cornerstone to understanding the complex relationship between economic transformation and demographic transition. The speed at which the demographic transition takes place is important because different speeds create different social, economic and environmental challenges and opportunities for countries (Agwanda and Amani 2014).

Most of the developing and developed countries of the world are facing an ever increasing pressure of population on their basic resources like land, water, soil, minerals and energy resources. India, the second largest populace country after china in the world is also suffering from the same problem. Today, the growth of population in India is alarming and it has created various problems like unemployment, low per capita income and dependence of large segment of population on primary activities. As planning and development of human resource of this country had always played a crucial role while coping with various problems related to population, the population structure of this country has to be studied thoroughly. Understanding the population structure is an important aspect of the population study of any region. It attempts to answer the questions that, what kind of people are there in the population of a particular region? and how do those differ from those in another region? Such a study covers some important aspects of population studies viz. Density, sex ratio, literacy, decadal growth and spatio-temporal variation of rural-urban population, which hold the personal and socio-economic attributes of the population. The study of population structure thus relates to

the distribution of one or more of these characteristics within a population and several interesting questions may be answered as a result of this type of study. As district is the most convenient unit to be considered for the population study, an attempt has been made in this paper to understand the population structure of Nandurbar district of Maharashtra.

OBJECTIVES

The objectives of the present paper are:

1. To study the Population density, literacy, and sex ratio.
2. To understand the decadal growth rate of population.
3. To know the spatial characteristics of population.

STUDY AREA

The district of Nandurbar is located in the north western part of Maharashtra (Fig.1). It is extended from 21⁰ 23' N to 22⁰ 47' N latitude and 74⁰ 19' E to 73⁰ 50' E longitudes. It covers an area of 5,955 square kilometers, which is divided into four topographic divisions. These are the Tapi valley, Satpuda region, the region of residual hills with dykes and the Western ghat region.

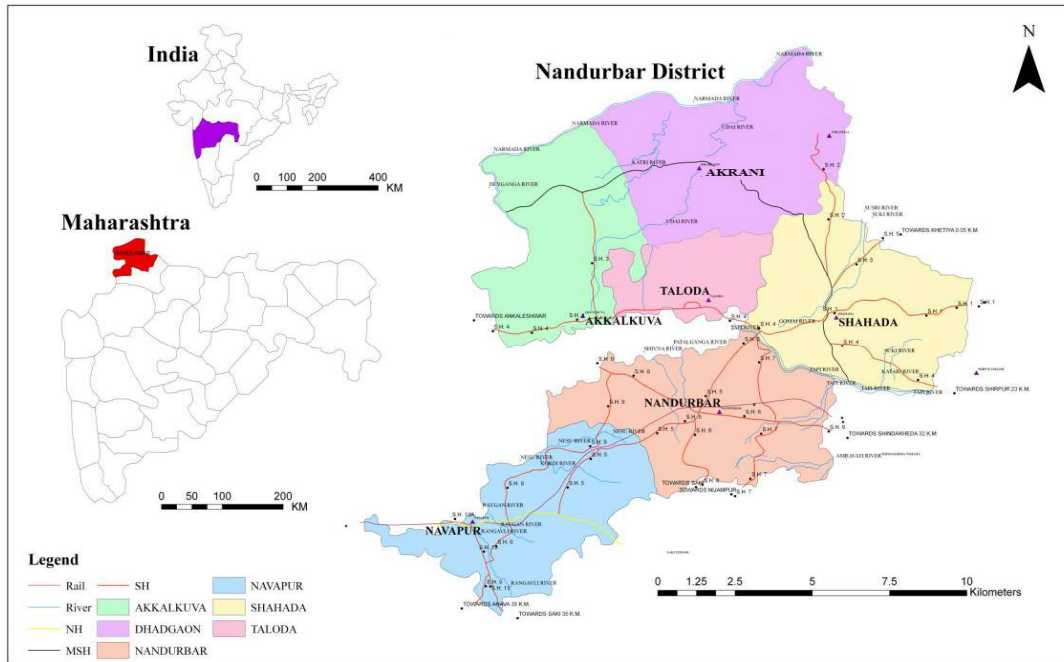


Figure 1: Location map of the study area

Climate of the district is hot and dry in general. On an average the district receives 823 mm. of rainfall annually. May is the hottest and December is the coldest month of the year. Soils of the district can be divided into deep black, medium and shallow types. Deep black soils mainly found in Tapi valley, medium soils are lying in the central and southern regions of the district while the hilly region of the district is covered by shallow soils. Vegetation in the district is characterized by tropical deciduous type. Teak (*Tectona grandis* L.) is the predominant plant species. Administratively the district is divided into Akkalkua, Akrani, Taloda, Shahada, Nandurbar and Navapur tehsils. According to 2011 census, the population of the district was 16, 48,295.

DATA BASE AND METHODOLOGY

The present study is based on the secondary data obtained from Socio-economic review (2015) of Nandurbar district. The data on population were obtained for the period between 1961 and 2011, while, the tehsil wise information was considered for the census year 2011. After processing, the data has been presented in the tabular form.

The density of population and its decadal growth rate has been computed by using following formulae,

$$\text{Population Density} = \frac{\text{Total Population}}{\text{Geographical area}}$$

$$\text{Growth Rate of Population (\%)} = \frac{\text{Population at the later time} - \text{Population at the earlier time}}{\text{Population at the earlier time}} \times 100$$

DENSITY OF POPULATION

Population density, the number of people living per unit of an area is important in describing the current status of the population and potentiality for making predictions about how it could change in future. The spatial distribution of population in the world is not uniform. There are wide regional variations in the degree of population concentration (Husain M. 1999). The population density of Nandurbar district was sharply increased during the period considered for study. It was raised from 96 persons/Sq. Km. in 1961 to 277 persons/Sq. Km. in 2011 (table 1). The density of population in the district was always remained low as compared to the population density of Maharashtra. In urban area, the tehsil of Shahada was having the highest (30,688 persons/Sq. Km.) while Navapur thesil was having the lowest (2,589 persons/Sq. Km.) population density. The highest and lowest density of rural population was observed in the tehsils of Taloda (294 persons/Sq. Km.) and Akrani (148 persons/Sq. Km.) respectively (Table 3).

Table: Total population, Density, Density (Maharashtra), Urban and Rural Population.

Year	Total Population	Density of Population Persons/sq.km	Population density, Persons/sq.km (Maharashtra)	Urban Population			Rural Population		
				Male	Female	Total	Male	Female	Total
1961	570171	96	129	41614	38925	80539	246996	242636	489632
1971	692467	116	164	54252	50424	104676	297583	290208	587791
1981	848010	142	204	67110	62409	129519	311236	357755	668991
1991	1062545	178	257	85151	78486	163637	452869	446039	898908
2001	131170	220	315	1049	9767	2026	5585	5505	11090

1	9			98	5	73	13	23	36
2011	1648295	277	365	145499	129975	275474	687671	685150	1372821

Source: Socio-economic review, 2015, Nandurbar district.

LITERACY

Literacy is the ability of a person to read and write at least a simple message with its understanding in any language. It is the symbol of human progress, social indicator of civilization and measure of living standard. Initially, the literacy of population in the study area was very low i.e. 20.31% in 1961 and it was increased upto 64.38% in 2011(table 2). Literacy in the district was raised by 317% in the period of five decades.

Table 2: Decadal Growth Rate (%), Literacy and Sex Ratio.

Year	Total Population	Decadal growth in the population (%)	Literacy (%)	Sex Ratio	Rural Population (%)	Urban Population (%)
1961	570171	--	20.31	976	85.87	14.13
1971	692467	+21.42	25.21	968	84.88	15.12
1981	798510	+22.46	29.71	982	84.73	15.27
1991	1062542	+25.30	40.56	974	84.60	15.40
2001	1311709	+23.45	55.80	977	84.55	15.45
2011	1648295	+23.66	64.38	978	83.29	16.71

Source: Socio-economic review, 2015, Nandurbar district.

SEX RATIO

The ratio between the two sexes has its bearing on the other demographic characteristics of the region (Shryock, 1976). Especially, the study of sex ratio plays an important role in the socio-economic planning of any region. It is vital in the study of other demographic characteristics of the region where it indicates the status of women's in the society. In 1961, the sex ratio of Nandurbar district was 976 which were declined up to 968 during the period of next ten years. Further, it was raised by 14 and observed as 982 in 1981. It was again declined and recorded as 974 in 1991. Further it showed improvement and observed as 978 in 2011(Table 2).

Table 3: Taluka wise Rural-Urban Population (2011)

Talu ka	Urban Population						Rural Population						Total Popul ation
	Ar ea Sq . Km.	Mal e	Fem ale	Tot al	Den sity	Se x Ra tio	Are a Sq. Km.	Mal e	Fe male	Tota l	De nsi ty	Se x Ra tio	
Akkal kua	7.29	19382	10505	29887	4100	542	928.73	108251	107723	215974	233	995	245861
Akran i	1.42	3212	2881	6093	4291	897	1280.89	94690	94971	189661	148	1003	195754
Talod a	2.20	13303	13060	26363	11983	982	452.94	66493	66798	133291	294	1005	159654

Shahada	2.00	31414	29962	61376	30688	954	1181.27	174499	171853	346352	293	985	407728
Nandurbar	31.41	57412	53625	111037	3535	934	1022.12	129260	127149	256409	251	984	367446
Navapur	15.73	20776	19942	40718	2589	960	1029.00	114478	116656	231134	225	1019	271852
Total	60.05	145499	129975	275474	4587	893	5894.95	687671	685150	1372821	233	996	1648295

Source: Socio-economic review, 2015, Nandurbar district.

DECADAL GROWTH RATE

Decadal growth rate is the percentage of population growth in the period of a decade. Table 2 depicts that, the decadal growth rate of population in the study area was ranged between 21.42 in 1971 and 25.30 in 1991. Development of health services, introduction of irrigational facilities, beginning of industrialization, expansion of transportation network and modernization of infrastructure was resulted into the constant growth of the population.

SPATIAL CHARACTERISTICS OF POPULATION

In the year 2011, population in the district (Table 3) was varied from 1, 59,654 in Taloda to 4,07,728 in Shahada tehsil. The tehsil of Akrani was having the lowest (6,093) urban population while, Nandurbar was having the highest (1, 11,037) urban population. The density of urban population was ranged between 2,589 (Navapur) and 30,688 (Shahada), Where the density of rural population was ranged between 148 in Akrani and Taloda (294). The urban sex ratio was ranged from 542 at Akkalkua to 982 at Taloda, whereas, the rural sex ratio was varied between 984 (Nandurbar) and 1019 (Navapur).

CONCLUSION

The study of population structure is useful to understand the characteristics and potentiality of any population. The present study concludes that, the density of both urban and rural population in the study area was increased consistently. However, it was remained low as compared to the population density of the state. There was a usual growth in literacy. During the period of fifty years the sex ratio and decadal growth rate were found increased slightly with some fluctuations. Population in the study area was characterized by spatio-temporal variations.

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