

Changing Patterns of Population Density in Vidarbha Region – A Geographical Analysis

Rajendra Janardhan Dhagekar

(Ph.D. Research Scholar-Department of Geography Ph.D. Registration no.-
SGBAU/Ph.D. /GEO/6536/2014)

Government Vidarbha Institute of Science and Humanity, Amravati.
Sant Gadge Baba Amravati University, Amravati (Maharashtra), India

Dr. D. S. Sinkar

(Ph.D. Guide & Professor-Department of Geography)

Government Vidarbha Institute of Science and Humanity, Amravati.
Sant Gadge Baba Amravati University, Amravati (Maharashtra), India

Abstract

Density is a concept that refers to population and area. Variations in the mathematical density of population occur due to geographic variation on Earth. Correspondingly, there is a large disparity in the density pattern of the Vidarbha region. During the period of 30 years from 1981 to 2011, the density of Nagpur district is highest (470) while the density of Chandrapur district is only 79.

In 1991, the density of Nagpur district was 332 per sq.km. while Gadchiroli district had the lowest density of only 55. In the year 2011, the density of Nagpur district increased by 138 to 470, while the density of Gadchiroli district increased by 19 to 74. Overall, in the period from 1981 to 2011, there is a consistent movement in the mathematical density of Nagpur district.

Keywords:-

Population, Density of Population, Change, Pattern.

Introduction:-

Population is an important expression of human group and it is a symbol of various natural and cultural scenes existing on earth. Population living in any region of the world is

one of the greatest assets of that region. The development of the respective region depends on the satisfaction of this wealth.

The concept of population density was first used in 1837 by Henry Dury Harness in his railway maps of Ireland. But at that time its purpose and meaning was different. Population density is actually the concept of how many people live in how many areas. Population density is the ratio of population to land area. 'Population density is the concentration of population in a region according to its geographical features'. Population density distribution is important in the study of demographic characteristics of any region. In which part of the region or country is a medium and dense population concentrated due to favorable natural and cultural factors? Apart from this, what are the sparse and sparsely populated regions created by adversity? This is evident from the study of population density. Population density is a convenient way to predict the development potential of a region.

Population density is a favorable and unfavorable indicator of progress in health, trade, social and economic planning that helps in the development of the region as a whole.

Study Area: -

The state of Maharashtra is divided into five geographical regions. Those divisions are Konkan, Western Maharashtra, Khandesh, Marathwada and Vidarbha. The region of Vidarbha has been selected as the study area for the present research paper. The location of Vidarbha falls in the tropics and its latitude is 18⁰42' North to 21⁰46' North and longitude is 75⁰57' East to 81⁰00' East. The area of Vidarbha region is 97404sq.km. which is located in the east of Maharashtra state and Vidarbha occupies 31.66% of the total area of Maharashtra state.

Purpose and objective of the study:-

The purpose of this short essay is to analyze the changing pattern of population density in Vidarbha region by conducting a district wise and decennial comparative study of population density in the period 1981 to 2011.

Data Sources and Research Methods:-

Statistical information from the period of 1981 to 2011 has been considered for the presented short research essay. The statistical data and information required to study the

changing pattern of population density in Vidarbha region have been obtained mainly through secondary sources.

Secondary sources of information are collected from India Census Report, Social and Economic Review, Maharashtra State Economic Report, Maharashtra State Statistical Abstract etc. It has also been obtained on the basis of public information by various government, semi-government and private organizations.

Formula :

$$\text{Population Density} = \frac{\text{Total Population}}{\text{Total Area (Sq. Km.)}}$$

Decadal Density of Vidarbha Region (1981-2011):-

Table No. 1.1 shows the mathematical density of Vidarbha region as per 1981. From the above table it can be seen that in Vidarbha region Nagpur, Bhandara and Akola districts fall in densely populated areas. In 1981, the population density of Nagpur district was found to be 270 persons per sq.km., while in Bhandara district it was 199 persons per sq.km. and Akola district had a population density of 173 persons per sq.km. The four districts of Buldhana, Amravati, Yavatmal, Wardha fall under medium population density. The population density of Buldhana district is 156 persons per sq.km. while Amravati has 152, Yavatmal 128 and Wardha 147 persons per sq.km. Chandrapur is the only district in the area of sparse population density. In 1981, the population density of this district was 79 persons per sq.km. Urbanization, industrialization, employment potential, extensive transport network, central location, etc., attract the population of Nagpur city and district from the surrounding areas as well as the border areas of Chhattisgarh and Madhya Pradesh. As a result the population density is high in Nagpur city and district.

Table No. 1.1

Population Density of Vidarbha Region – (1981 – 2011)

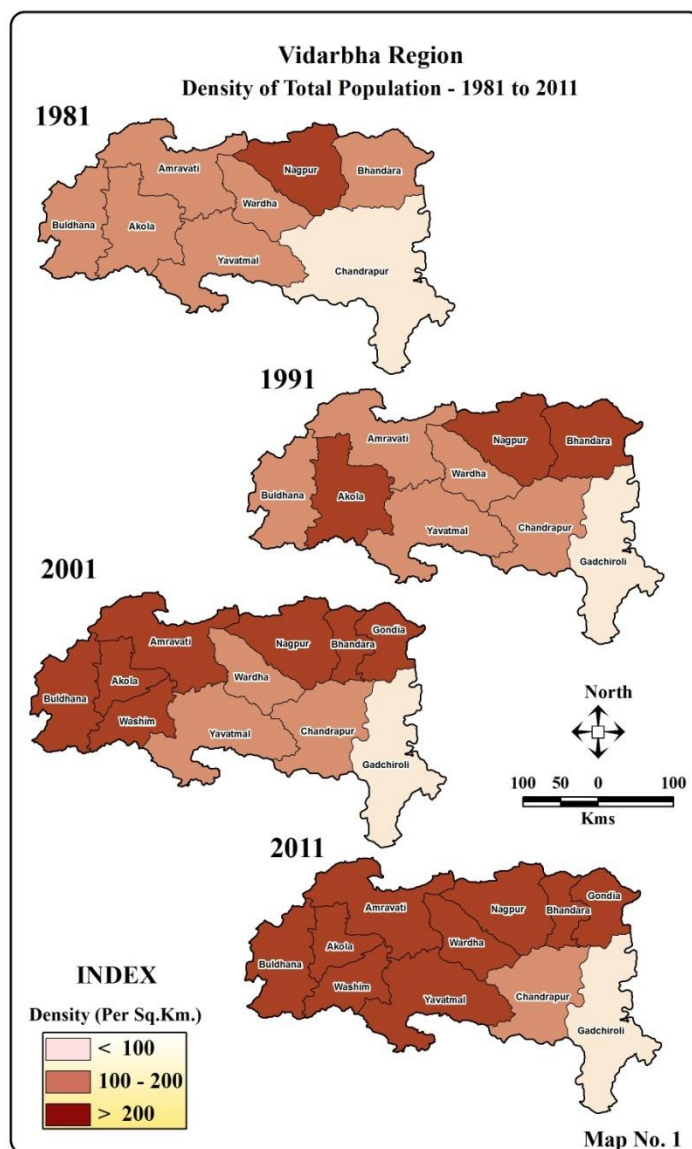
Sr. No.	Districts	1981	1991	2001	2011
1	Buldhana	156	195	231	268
2	Akola	173	209	287	320
3	Washim	-	-	208	244
4	Amravati	152	180	214	237
5	Yavatmal	128	153	181	204

6	Wardha	147	169	196	206
7	Nagpur	270	332	411	470
8	Bhandara	199	226	278	294
9	Gondia	-	-	229	253
10	Chandrapur	79	155	181	193
11	Gadchiroli	-	55	67	74

Source - Author

The study of the mathematical density of Vidarbha region indicates that in 1991, Nagpur district was very densely dense whereas Gadchiroli district in the eastern part of Vidarbha region has very sparse mathematical density. Mathematical density of Nagpur district is the highest i.e.332 persons per sq.km. while Gadchiroli district has the lowest i.e.55 persons per sq.km. Similarly, Bhandara226, Akola 209, Buldhana195, Amravati 180, Wardha 169, Yavatmal153, and Chandrapur 155 people per sq.km.

Nagpur district has the highest population density of 411 persons per sq.km. in the study area in 2001 while Gadchiroli district has the lowest population density of 67 persons per sq.km. Medium density is observed in other districts of Vidarbha region. Among them Buldhana231, Akola 287, Washim 208, Amravati 214, Yavatmal181, Wardha 196, Bhandara278, Gondia229 and Chandrapur district has a numerical density of 181 persons per sq.km.



According to the census of 2011, when the mathematical density of Vidarbha region is studied, it is indicated that Nagpur district of Vidarbha region has the highest mathematical density of 470 persons per sq.km., while Gadchiroli district has the lowest mathematical density of 74. After Nagpur district, Akola district ranks second in terms of mathematical density. The mathematical density of Akola district is 320 persons per sq.km. Bhandara 294, Buldhana 268, Gondia 253, Washim 244, Amravati 237, Wardha 206, Yavatmal 204 and Chandrapur 193 are ranked below that.

Between the years 1981 and 1991, the highest change in population density occurred in Nagpur district, which increased by 62 persons per sq.km. Similarly, during the decennial year 1991-2001, the highest density change occurred in Nagpur district, which increased by 79 persons per sq.km. Similarly, in the decade 2001-2011, the lowest population density

change has occurred in Gadchiroli district, which is only 7 persons per sq.km., while in Wardha 10, Chandrapur 12 and Gondia districts, there has been a small change, which is 16 persons per sq.km.

Conclusions:-

Population density of Vidarbha region has been studied as per 1981 to 2011 census. It was directed that in 1981 Nagpur district had the highest mathematical density (270) while Chandrapur district had the lowest mathematical density (79). In 1991, the Mathematical density is highest in Nagpur district which is 332. Also, Gadchiroli district has the lowest mathematical density which is 55. According to the 2001 census, Nagpur district has the highest population density of 411 and Gadchiroli district has the lowest mathematical density of 67 per person per sq.km. According to the 2011 census in Vidarbha regions, Nagpur district has the highest mathematical density of 470 per sq.km. while Gadchiroli district has the lowest mathematical density of 74.

References :-

1. Dr. Vitthal Gharpure, Human Geography, Pimpalpure Ad Publishers, Nagpur, Pp193-194, 2000.
2. Kamalakant Dubey, Mahendra Bahadur, Population Geography, Rawat Publication, Jaipur, Pp. 157, 1994.
3. Prof. Savadi A. B., The Mega State Maharashtra, Nirali Prakashan, Pune.
4. India Census Reports 1981, 1991, 2001.
5. Maharashtra State Statistical Abstract 2011.
6. Norman J.G. (1971): "Population Density in Fifteen Century France and LowCountries", Annals of the Association of American Geographers, Vol.61, Pp.116