

“Study of Tribal Population Density in Nashik District”

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Abstract

For humans, population density is the number of people per unit of area, usually quoted per square kilometer or square mile (which may include or exclude, for example, areas of water or glaciers). Commonly this may be calculated for a county, city, country, another territory or the entire world.

City population and especially area are, however, heavily dependent on the definition of "urban area" used: densities are almost invariably higher for the central city area than when suburban settlements and the intervening rural areas are included, as in the areas of agglomeration or metropolitan area, the latter sometimes including neighboring cities.

KEYWORDS: Population, Density, Arithmetic Density, Tribal.

Introduction:

The world's population is around 7,500,000,000^[3] and Earth's total area (including land and water) is 510,000,000 square kilometers (197,000,000 sq. mi.).^[4] Therefore, the worldwide human population density is around $7,500,000,000 \div 510,000,000 = 13.7$ per km² (35 per sq. mi.). If only the Earth's land area of 150,000,000 km² (58,000,000 sq. mi.) is taken into account, then human population density increases to 47 per km² (120 per sq. mile). This includes all continental and island land area, including Antarctica. If Antarctica is also excluded, then population density rises to over 50 people per km² (over 130 per sq. mile).^[1] However, over half of the Earth's land mass consists of areas inhospitable to human habitation, such as deserts and high mountains, and population tends to cluster around seaports and fresh-water sources. Thus, this number by itself does not give any helpful measurement of human population density.

Several of the most densely populated territories in the world are city-states, microstates and dependencies.^{[5][6]} These territories have a relatively small area and a high urbanization level, with an economically specialized city population drawing also on rural resources outside the area, illustrating the difference between high population density and overpopulation.

Cities with high population densities are, by some, considered to be overpopulated, though this will depend on factors like quality of housing and infrastructure and access to resources.^[7] Most of the most densely populated cities are in Southeast Asia, though Cairo and Lagos in Africa also fall into this category.^[8] For instance, Milwaukee has a greater population density when just the inner city is measured, and the surrounding suburbs excluded.^[9]

Study Region:

Nashik district is located in northwest in Maharashtra state. This district extends from 19° 33" to 20° 52" north latitudes and 73° 16" to 74° 56" east longitudes. The study region spreads over 15530 square kilometers and ranks fifth in Maharashtra state accounting 5.04 percent area. The study region is Rhomboidal in shape with a

longer diagonal of some 170 kilometers from southwest to northeast and an extreme width of about 120 kms from north to south. Administratively, this area consists of fifteen tahsils, namely Chandwad, Devala, Dindori, Igatpuri, Kalvan, Malegoan, Nandgaon, Nashik, Niphad, Peint, Baglan, Sinnar, Surgana, Trimbakeshwar and Yevla. Among these, tahsils Malegaon is largest tahsil occupying 12 percent area, whereas Peint is smallest tahsil (3.63 percent) in the study area. The district headquarter is located in Nashik. Nashik district is surrounded by Jalgaon district in east and northeast, Dhule in the north, Gujarat state in northwest, Thane district in southwest, Ahmednagar district in the south and Aurangabad district in the southeast.

Regarding origin of name, two interpretations are given. First, the town is sited on nine peaks or navashikhara and hence, it's renamed as Nashik. The other relates to incident Ramayana. Lakshmana is said to have cut off the nose (Nashika) of Shurpanakha in this place. The district comes into being in 1869 when Britishers re-arranged districts of Maharashtra state.

Nashik district is located in Maharashtra. The population of Nashik district is 6,107,187 as per Census 2011. Nashik is 4th most populous district out of the total 35 districts in Maharashtra and it is 11th most Populous district in India. In 2011, Nashik had a population of 6,107,187 of which male and female were 3,157,186 and 2,950,001 respectively. In the 2001 census, Nashik had a population of 4,993,796 of which males were 2,590,912 and remaining 2,402,884 were females.

Nashik District population constituted 5.43 percent of the total Maharashtra population. In the 2001 census, this figure for Nashik District was at 5.15 percent of Maharashtra population. There was a change of 22.30 percent in the population, compared to the population as per 2001. In the previous census of India 2001, Nashik District recorded an addition of 29.66 percent to its population compared to 1991.

1.4 Objectives:

1. To examine the tribal population density of Nashik district
2. To study the tribal population density volume of change (1991 to 2011) in Nashik district.

Data Sources:

The present study is primarily based on both secondary. The secondary data have been obtained from Statistical Handbooks, District Census Handbook, Socio-economic Abstract of Nashik District, Tribal Development Department Nashik, Tribal Research and Training Institute, Pune and Census of India from 1991 to 2011.

Tribal Population Density in Nashik District:

The density is the proportion between population and region within a region. This proportion can be conveyed in three ways, namely, arithmetic, agricultural and physiological density. Arithmetic density is the total population divided by total area. Table- 3.1 exhibits the tribal population density in Nashik district for 1991 and 2011. It is observed that density of tribal population in study region was 60 persons per square kilometer in 1991. Whoever and is found variations in density of tribal population in the study area. The highest density was recorded in Peint tahsil (217) followed by Nashik (145), Surgana (124) and Kalwan (120) tahsil lying on the west part in the study area due to mountainous area, dense forest cover, less urbanization and less industrialization, poor transport and remote area. This has attributed to hilly, forest and remote area except Nashik tahsil. The tribal's in-migration in search jobs in Nashik city. The moderate density between 50 to 100 persons per square kilometer was

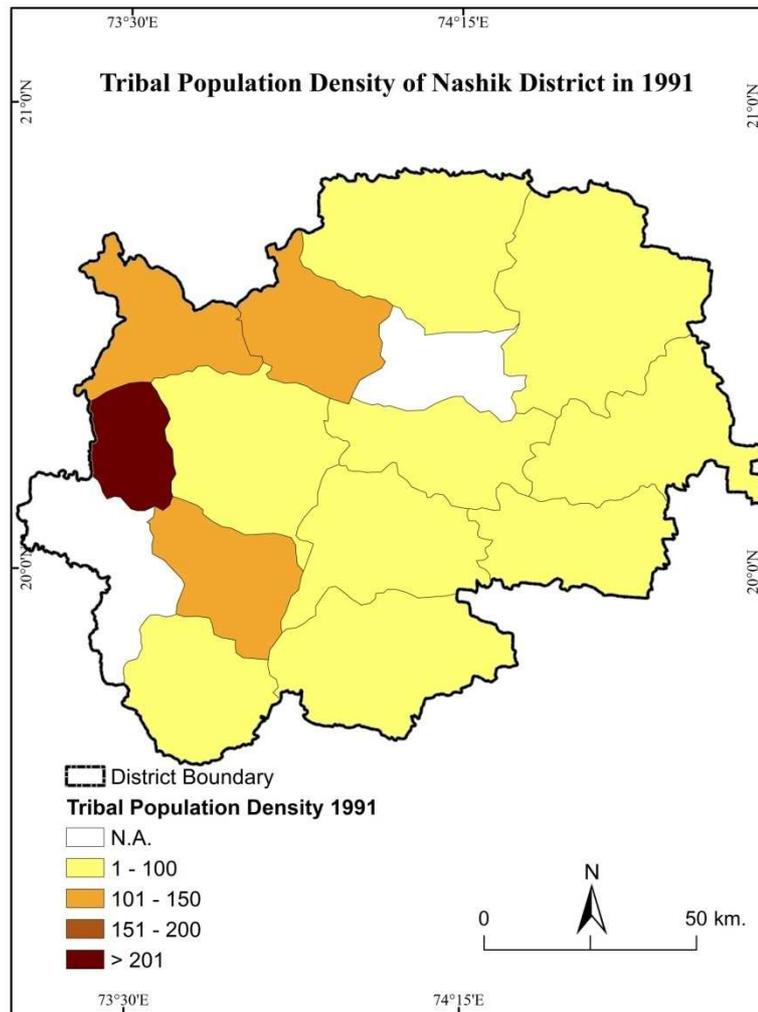
identified in Igatpuri (96), Dindori (81), Baglan (63) and Niphad (55) tahsils. The less tribal population density in study region was found in Yevla (14), Sinnar (19), Nandgaon (20), Chandvad (27) and Malegaon (30) tahsils. These tahsils are located in east region in the survey region. The density of tribal population decreases from west to east part due to increasing non-tribal population in the study area.

Table: Arithmetic Density of Tribal Population in Nashik District

Tahsils	Years		Volume of Change
	1991	2011	1991 to 2011
Nashik	145	226	81
Peint	217	206	-11
Dindori	81	131	50
Surgana	124	201	77
Kalwan	120	167	47
Baglan	63	101	38
Malegaon	30	53	23
Chandvad	27	49	22
Nandgaon	20	40	20
Yevla	14	27	13
Niphad	55	91	36
Sinnar	19	34	15
Igatpuri	96	121	25
Trimbakeshwar	N.A.	154	N.A.
Deola	N.A.	53	N.A.
District Total	60	101	41

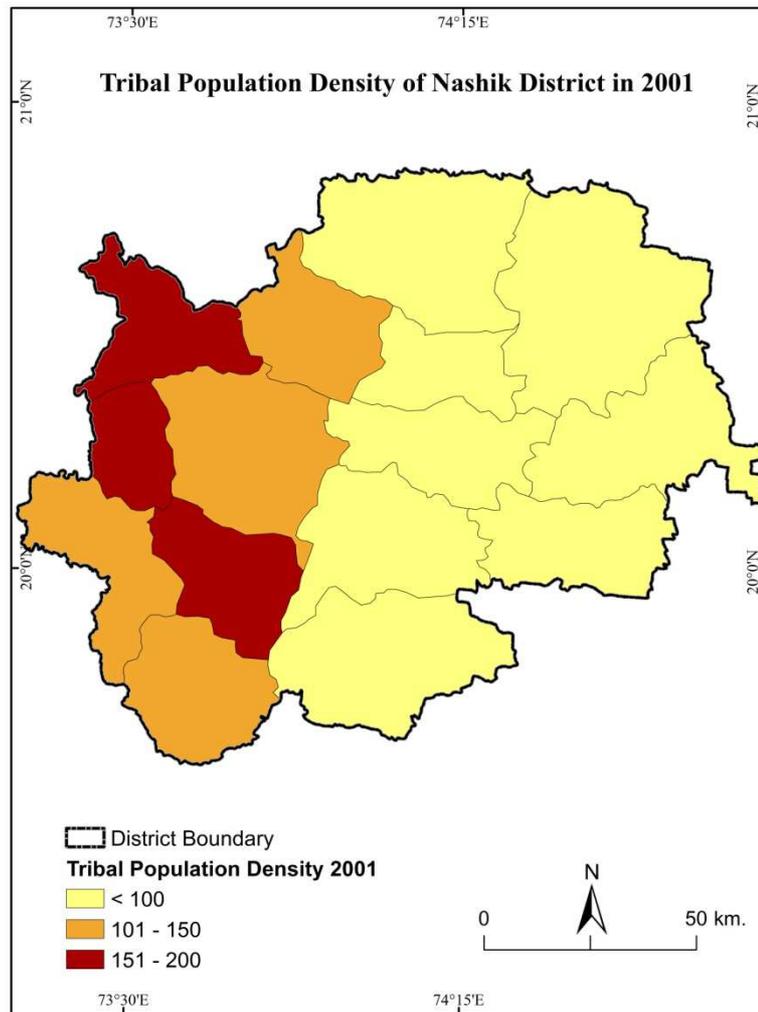
Source: District Census Handbook, Nashik District for 1991 and 2011.

Note: N.A. = Data is not available.



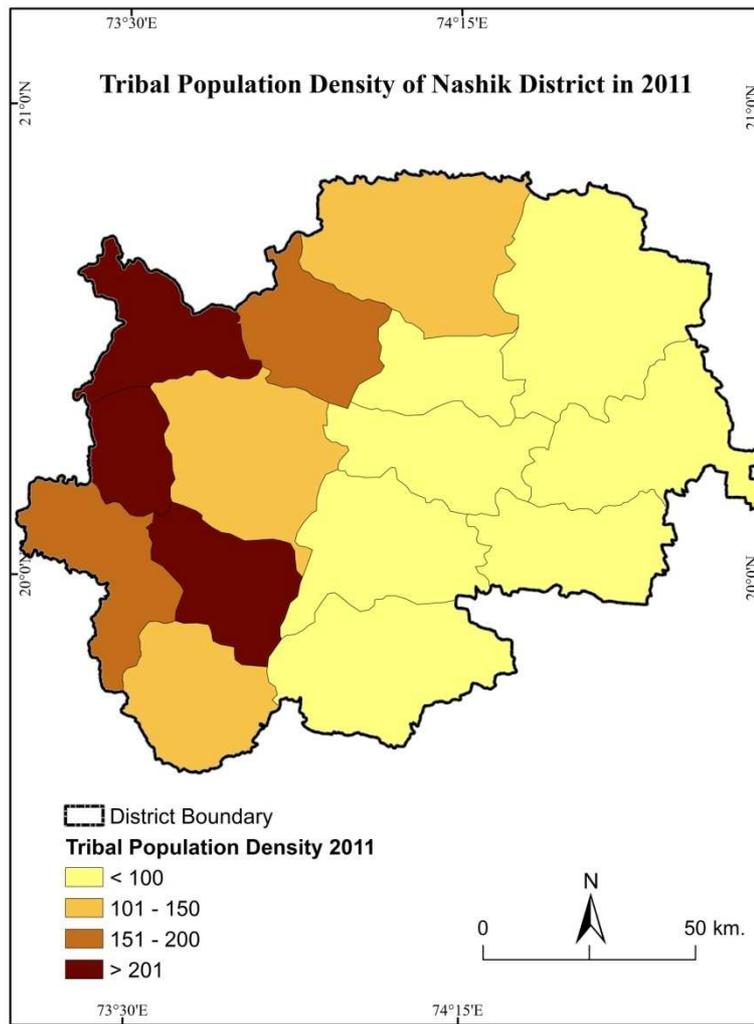
Source: Census Handbook

Fig. 1: Tribal Population Density of Nashik District in 1991



Source: Census Handbook

Fig. 2: Tribal Population Density of Nashik District in 2001



Source: Census Handbook

Fig. 3: Tribal Population Density of Nashik District in 2011

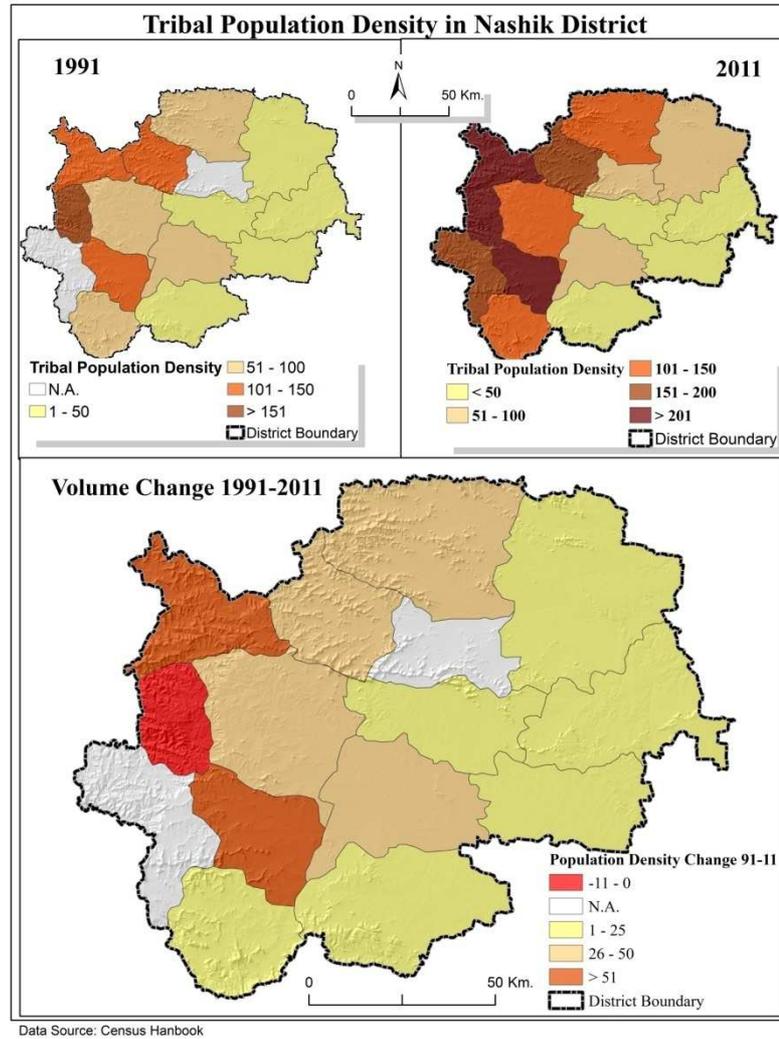


Fig. 4: Tribal Population Density and Volume of Change in Nashik District (1991 to 2011)

Conclusion:

It is observed that the density of tribal population in Nashik district was 101 persons per square kilometer in 2011. The variations in tribal density have found within study region. The highest density was recorded in Nashik tahsil (226) followed by Peint (217), Surnana (201), Kalvan (167), Trimbakeshwar (154), Dindori (131), Igatpuri (121), Baglan (101) and Niphad (91) tahsils. These tahsils lie in west part in study region. This has attributed to hilly, forest and remote area except Nashik tahsil. The tribal's in-migration in search jobs in Nashik city. The lowest tribal population density was found in Yevla (27), Sinnar (34) and Nandgaon (40), Chandvad (49), Deola (53) and Malegaon (53) tahsils. These tahsils are located east part in study region. The decline trend is observed in 1991 and it decreases from west to east in study region. The change in tribal density during 1991 to 2011 is positive except Peint tahsil (i.e. -11). The growth of total population density for 1991 to 2011 was 161 persons per square kilometer. The density of tribal population has slightly increased during study period (41) and west lying tahsils have recorded positive growth of tribal density. The highest volume of growth of tribal density was recorded in Nashik tahsil (226) because of larger industrial development, districts headquarter, and educational center hence tribal does have migrated. The growth of tribal density is observed high in

Surgana (77), Kalvan (47), Dindori (50), Baglan (38) and Niphad (36) tahsils. The lowest growth of tribal density was observed in Peint (-11), Yeola (13), Sinnar (15), Nandgaon (20), Chandvad (22), Malegaon (23) and Igatpuri (25) tahsils. These tahsils belong to non-tribal and drought prone area and has dominance of agriculture and industry activity. During 1991 to 2011 only one tahsil Peint is observed (-11) as negative trend of arithmetic density of tribal population.

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