Original Article

Regional Households and Population Distribution of Nandurbar District: A Geographical Appraisal

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Abstract:

The current study gives a detailed lookout at the demographic pattern of Nandurbar district, which is in the northwestern part of Maharashtra, India. This area is mostly inhabited by tribal communities and features a range of physical landscapes. Nandurbar district demographic characteristics have been formed by its history, economy and environment. This research paper explores important demographic factors, including households, villages and tehsil wise population distribution different tehsils in the Nandurbar district.

The study provides a comprehensive geographical appraisal of household structures and population distribution in Nandurbar district, Maharashtra. The region, characterized by its tribal dominance and diverse physiographic features, exhibits notable demographic variations across tehsils. Using secondary data from Census 2011, District Statistical Abstracts, and socio-economic reports, the research applies statistical and comparative analysis to highlight spatial disparities in household size, density, and distribution patterns. The findings reveal that tehsils such as Shahada and Nandurbar account for the highest share of population and households due to better infrastructure and accessibility, while hilly and tribal-dominated tehsils like Akkalkuwa and Akrani face stagnation and out-migration. The uneven distribution underscores issues of regional imbalance, limited access to education and healthcare, and challenges in sustainable development. The study concludes that region-specific planning and infrastructure development are essential to address demographic disparities and promote inclusive growth in this tribal district

Keywords: Household Structure, Demographic Pattern, Population Distribution, Regional Disparities.

Introduction:

Demographic studies are essential for regional planning and development policies. Factors like population density, distribution, growth, sex ratio, literacy, and employment structure greatly impact the social, economic, and cultural aspects of any area. In this context, looking at demographic features geographically gives a spatial view. It shows how human populations interact with their natural surroundings and social environment.

The Nandurbar district is located in northwestern part of Maharashtra. This area is mostly tribal and has unique geographical, social, and economic traits. A large part of its population belongs to Scheduled Tribes, which creates special demographic patterns influenced by historic, cultural, and environmental elements. Even though it has rich natural resources, the district struggles with issues like population pressure, low literacy rates, limited healthcare access, and uneven development.

This research paper provides a detailed geographical analysis of Nandurbar house hold and tehsil wise demographic profile. Using spatial and statistical methods, it determination look at population trends, distribution patterns and how geographical influences these factors. The goal is to shed light on regional inequalities and development opportunities within the district. This will help build a deeper understanding of the demographic situation in this tribal region.

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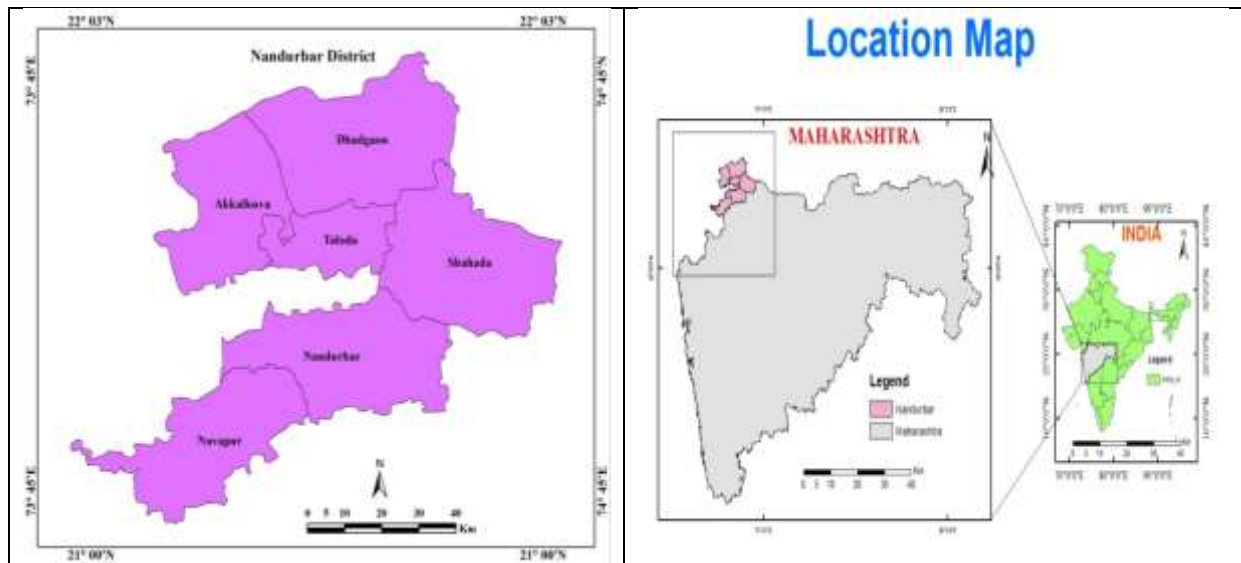
Location Of Study Region:

Nandurbar district is in the northwestern part of Maharashtra, India. It is located between Latitude 21°.00' North to 22°.03'North and Longitude 73°.34' East to 74°.47' East. This area is part of the Khandesh region. Nandurbar district its borders with Dhule district to the south and east, Gujarat state to the west, and Madhya Pradesh to the north.

The Nandurbar district covers about **5,955** square kilometers and has diverse geography, including hilly areas, forests, and river valleys. A large part of Nandurbar lies within the Satpura mountain range, particularly in the northern and northwestern areas, adding to its rugged landscape. Rivers like the Tapi, Narmada, and their tributaries shape settlement patterns and farming activities in the region.

In administration divisions, the district has six tehsils: Nandurbar, Taloda, Shahada, Akkalkuwa, Akrani (Dhadgaon), and Navapur. The district headquarters is in the town of Nandurbar. The area is mostly rural, hosting a significant number of Scheduled Tribe (ST) members, particularly the **Bhil, Pawara, Kokni** and **Mavchi** tribes; they live in the **hills** and **forests**.

The Nandurbar district has a tropical **savanna** climate, with three distinct seasons: hot summers, moderate monsoons, and mild winters. The average annual rainfall is around 700 mm. The district is situated in the Satpura hill range, with an average elevation of 210 meters above sea level. The monsoon season greatly influences farming, which is the main source of income for many residents.

Map No.01: Location Map of the Nandurbar District.

Objectives Of the Paper:

The present paper's study objective is as follows:

To the study aims for households and population distribution across different tehsils in the Nandurbar district.

Study Methods and Material:
Study Methods:

This study takes a descriptive and analytical approach. It combines both quantitative and qualitative methods to look at the demographic profile of Nandurbar district. The research mainly relies on secondary data. This data is examined through a geographical lens to grasp spatial patterns and regional differences.

Data Sources:

The study relies on secondary data sources, including the 2011 Census of India Reports for demographic variables such as households and population distribution across various tehsils in the Nandurbar district. It also uses District Statistical Abstracts and Socio-Economic Reviews for tehsil-wise data on population and socio-economic indicators. Publications from the Government of Maharashtra, as well as the Human Development Report, are included. Additionally, it uses topographical and administrative maps from the Survey of India and scholarly articles, government documents, and relevant literature for context and support.

Methods of Data Analysis: The collected data is analyzed using these methods:

Statistical analysis: Simple statistical tools like percentages, ratios, and growth rates evaluate demographic indicators.

Comparative analysis: Inter-tehsil and inter-temporal comparisons assess spatial and temporal variations.

Discussion:

Demographic Profile of Nandurbar District:

The demographic profile of Nandurbar district, as depicted through this geographical assessment, presents a multi-layered relationship between physiographic, economic development, and cultural forces. Spatial patterns of population across the district highlight the importance of topography, accessibility, and availability of resources in conditioning settlements.

One of the most notable characteristics noted is the concentrated density of tribal population, most notably from the Bhil and Pawara groups, responsible for the distinctive demographic and cultural make-up of the district.

Population growth patterns indicate a moderate rise, but closer inspection demonstrates intra-district variation. While city locations like Shahada and Nandurbar indicate growth due to improved infrastructure and services, interior and hill tehsils like Akkalkuwa and Akrani demonstrate stagnation or even population loss, possibly because of out-migration and restricted livelihood opportunities.

The demographic characteristics of Nandurbar district exhibit significant disparities, including aspects such as population growth, distribution, density, sex ratio, literacy rates, and the proportion of Scheduled Tribe (ST) individuals. A critical element of population dynamics is growth, which refers to the fluctuations in population size resulting from births, deaths and migration. Population growth encompasses any alterations in the number of individuals within a specific area over a defined timeframe, regardless of whether these changes reflect an increase or decrease; a decline in population is referred to as negative growth.

Governments strive to meet the essential needs of their citizens, including infrastructure, water supply, education, healthcare and housing. While they endeavor to address these requirements, they often lack a comprehensive understanding of the future population burden on primary and secondary services. Consequently, insights into population growth are vital for effective future planning and decision-making regarding population control measures.

Nandurbar District: Households and Population Distribution (2011)-

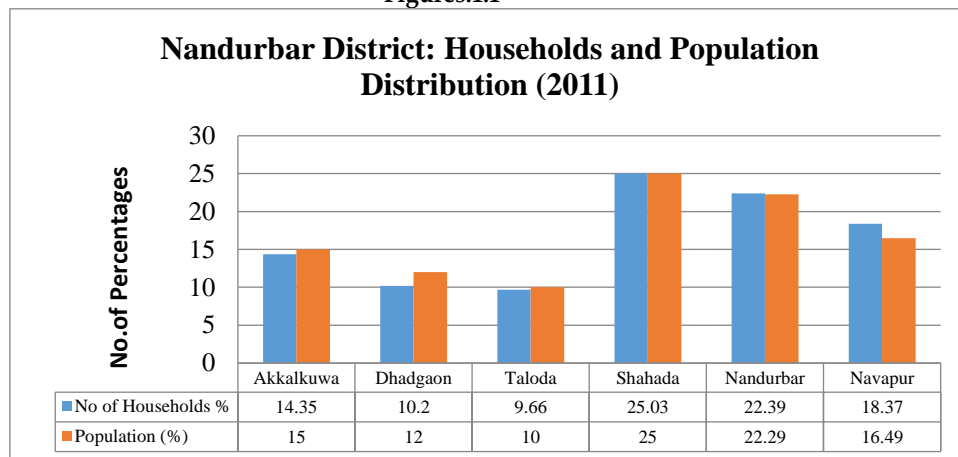**Formula:** Percentage of Household= $\dfrac{\text{Particular Tehsil Households}}{\text{No. of Total Households}}$ x 100

Formula: Population Percentage = $\dfrac{\text{Particular Tehsil Population}}{\text{No. of Total Population}}$ x 100

Table.1.1: Nandurbar District: Households and Population Distribution (2011)

Tehsils	No of Households	Total Population	No of Households (%)	Population (%)
Akkalkuwa	46429	245861	14.35	15
Dhadgaon	33007	195754	10.20	12
Taloda	31255	159654	9.66	10
Shahada	80967	407728	25.03	25
Nandurbar	72434	367446	22.39	22.29
Navapur	59429	271852	18.37	16.49
Total	**323521**	**1648295**	**100.00**	**100**

Source: India Census Report, 2011.

Figures.1.1

Nandurbar District: Households and Population Distribution (2011)

	Akkalkuwa	Dhadgaon	Taloda	Shahada	Nandurbar	Navapur
No of Households %	14.35	10.2	9.66	25.03	22.39	18.37
Population (%)	15	12	10	25	22.29	16.49

The Table and Figure 1.1 provide data on the number of households and total population across six tehsils. Additionally, the percentage share of households and population for each tehsil is given, with the total population of the region being **1,648,295** and the total number of households being **323,521**. According to the 2011 District Census report, Table 1.1 outlines the household and population statistics for Nandurbar District. Table and Figure 1.1 illustrate the graphical distribution of the household population across different tehsils within the district.

Table.1.2: Regional Household and Population Distribution Summary:

Sr.	Tehsils	No of Households (%)	Population (%)	Tehsils Summarize Notable Characteristic
1.	Akkalkuwa	14.35	15	Moderate size, balanced
2.	Dhadgaon	10.20	12	High avg. household size
3.	**Taloda**	**9.66**	**10**	**Smallest contributor**
4.	**Shahada**	**25.03**	**25**	**Largest contributor**
5.	Nandurbar	22.39	22.29	Dense Urban center,
6.	Navapur	18.37	16.49	Smaller avg. households
	Total	**100.00**	**100**	

Source: India Census Report, 2011 & complied by researcher.

Highest and Lowest Contributors:

The Table.1.2 shows that Shahada Tehsil has the highest contributor's proportion both in Households: 80,967 (25.03%) Population: 407,728 (25%). Taloda Tehsil has the lowest contributor's proportion in: Households: 31,255 (9.66%) Population: 159,654 (10%).

Population-Household Proportion Consistency:

The majority of tehsils have a consistent correlation between the proportion of households and their population proportion, reflecting a fairly even average household size. There are, however, some exceptions: The Table.1.2 shows that Navapur 18.37% of the households, yet merely 16.49% of the population, indicating reduced average household size. Dhadgaon 10.20% of households, but 12% of the population, indicating higher household sizes.

Conclusion:

The geographical study of household and population distribution in Nandurbar district reveals the complex relationship between physical terrain, socio-economic conditions, and available infrastructure in shaping demographic patterns.

By comparing population share with household share, can deduce: Dhadgaon and Akkalkuwa might have more joint families or larger families, leading to greater population per household. Navapur, however, might have more nuclear family households or migration patterns, leading to fewer people per household.

The study shows that population and household distribution is uneven across the district's tehsils. There are higher concentrations in more accessible and developed areas, while the remote, hilly, and tribal-dominated regions are sparsely populated.

This uneven distribution highlights broader issues like limited access to basic amenities, lower literacy rates, inadequate health services, and underdeveloped transport networks in interior regions. The district's tribal majority and rural character further emphasize the need for specific policies that address these regional challenges.

Recommendations:

Based on the geographical study of household and population distribution in Nandurbar district, here are some recommendations to tackle the regional gaps and encourage balanced growth:

Strengthen Infrastructure in Remote Areas: Improve Education facilities, road connectivity, electricity, water supply, and digital infrastructure, especially in hilly and tribal areas like Akkalkuwa and Dhadgaon. This will help reduce isolation and boost economic activity.

Promote Decentralized Development:

Encourage small and medium-sized industries, agro-based businesses, and service centers in underdeveloped areas. This will create local jobs and help stop people from moving away.

Enhance Access to Education and Healthcare:

Invest in building well-equipped schools, colleges, and health facilities in sparsely populated and backward regions. Consider mobile health and education services for remote hamlets.

Implement Region-Specific Planning:

Use micro-level and tehsil-wise planning strategies that match the unique demographic and geographical features of each area. Combine tribal development plans with broader regional planning.

By focusing on these key areas, we can significantly reduce regional inequalities in household and population distribution within Nandurbar district. This will lead to more inclusive and sustainable development.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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