

Spatial Pattern and Socio-Economic Dimensions of Tribal Population in Ranchi District: A Geographical Analysis

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Abstract

Tribal communities constitute a significant component of the demographic and cultural landscape of Jharkhand. Ranchi district, located in the Chotanagpur Plateau region, is characterized by a substantial concentration of tribal communities such as the Munda, Oraon, Lohra, Kharia, and Mahli. Over the past few decades, processes of urbanization, industrialization, infrastructural expansion, and socio-economic transformation have significantly influenced the spatial distribution and socio-economic conditions of tribal populations. The present study examines the spatial pattern and socio-economic dimensions of the tribal population in Ranchi district using secondary data sources. Data have been obtained from the Census of India, District Census Handbook, Jharkhand Statistical Handbook, and other government publications. The study reveals considerable spatial variation in tribal population concentration across different blocks of the district. Tribal populations are predominantly concentrated in rural plateau and forested regions, whereas urban and peri-urban areas exhibit relatively lower tribal proportions due to demographic diversification. The study further highlights disparities in literacy, occupation, infrastructure, and access to development opportunities among tribal communities. The findings emphasize the need for region-specific development policies aimed at promoting inclusive growth and sustainable tribal development.

Keywords: Tribal Population, Spatial Distribution, Socio-Economic Development, Ranchi District, Scheduled Tribes, Jharkhand, Geographical Analysis

1. Introduction

India's Scheduled Tribes represent a vital thread in the country's social and cultural fabric. These communities carry distinctive traditions, languages, and institutional structures shaped over centuries through deep association with forests, land, and water bodies (Karade, 2009; Vidyarthi & Rai, 1977). Their livelihoods and identities remain closely tied to natural ecosystems (Bhengra et al., 1998; Elwin, 1964). Recognizing their historical marginalization, the Indian Constitution extends special protections and affirmative measures to tribal populations (Xaxa, 2008; Kumar & Marwah, 2026). Yet despite these provisions and numerous government welfare schemes, tribal communities continue to grapple with poverty, low literacy, land alienation, unemployment, and inadequate healthcare and infrastructure

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(Areeparampil, 1996; Fernandes & Menon, 1987; Ghosh et al., 2026).

India hosts one of the world's largest tribal populations, comprising roughly 8.6 percent of the national population as recorded in the 2011 Census (Census of India, 2011). These communities are spread unevenly, with the heaviest concentrations in central, northeastern, and peninsular India (Bose, 1975; Singh, 1993). The central tribal belt stretching from Rajasthan to West Bengal contains some of the densest tribal settlements in the country (Xaxa, 1999). Within this belt, Jharkhand stands out for both its large tribal population and its rich indigenous heritage (Singh, 2002). Major tribal groups inhabiting the state include the Santhal, Munda, Oraon, Ho, Kharia, Lohra, Birhor, and Asur communities (Singh, 1993; Ghurye, 1963). Historically, these groups have depended on agriculture, shifting cultivation, animal husbandry, and forest resources for survival (Bhengra et al., 1998; Prasad, 2014). Their customs, governance structures, and knowledge systems continue to define much of Jharkhand's cultural character (Vidyarthi & Rai, 1977; Xaxa, 2008).

Among Jharkhand's districts, Ranchi occupies a position of particular significance. Serving as the state capital and situated on the Chotanagpur Plateau, Ranchi has long been a centre of tribal culture, administrative power, and political movements (Singh, 2002). The Munda and Oraon communities have historically dominated the district, contributing substantially to its social and cultural identity (Mondal et al., 2011). The legendary tribal leader Birsa Munda, who spearheaded one of the most celebrated resistance movements against British colonial rule, hailed from this region and inspired tribal resistance movements across the Chotanagpur Plateau (Xaxa, 2008; Singh, 1993). Today, tribal communities still constitute a substantial share of the district's population and remain central to its social life (Census of India, 2011).

The physical landscape of Ranchi district has profoundly influenced the distribution and settlement of tribal communities. The plateau's undulating terrain, residual hills, forest cover, river valleys, and fertile lowlands historically provided favourable conditions for tribal habitation (Singh, 2002). Forests supplied food, fuel, fodder, medicinal plants, and minor forest produce, while agricultural tracts supported subsistence farming (Dey et al., 2022; Bhengra et al., 1998). As a result, tribal settlements naturally concentrated in plateau and forested zones where communities could sustain close interaction with natural resources (Islam et al., 2015). These geographical realities have long shaped distinct patterns of tribal settlement across the district (Singh, 2002).

In recent decades, however, the district's demographic and socio-economic landscape has changed considerably. Urbanisation, industrialization, infrastructural expansion, and growing links with regional and national markets have reshaped traditional tribal lifestyles and settlement arrangements (Kumar & Minz, 2018; Munshi, 2012). Ranchi city's emergence as an administrative, educational, commercial, and industrial hub has attracted migrants from across the state and beyond (Kumar & Minz, 2018). Urban growth has altered land-use patterns, converting farmland into residential and commercial zones and placing fresh pressure on natural resources (Prasad, 2014). These shifts have influenced demographic compositions and produced noticeable spatial variations in tribal population distribution across the district (Kumar & Minz, 2018).

This distribution is far from uniform. Blocks such as Tamar, Bundu, Sonahatu, Angara, Lapung, and Rahe maintain high tribal concentrations, while urban and peri-urban areas near Ranchi city show comparatively lower tribal proportions (Census of India, 2011; District Census Handbook, Ranchi). Physical geography, forest access, agricultural potential, educational facilities, employment opportunities, and the reach of urban influence all interact to produce these regional variations (Islam et al., 2015; Singh, 2002). Understanding such spatial patterns is essential for identifying areas of high tribal concentration and formulating targeted development policies (Sharma, 1978; Xaxa, 2008).

Signs of socio-economic change are increasingly visible among tribal communities. Rising literacy, improvements in transportation and healthcare, and expanding communication networks have drawn tribal populations into broader economic processes (Islam et al., 2015; Census of India, 2011). More tribal youth are now pursuing higher education and entering skilled occupations. Employment diversification across government services, industries, private enterprises, and the informal sector has also grown (Kumar & Minz, 2018; Tigga, 2019). Nevertheless, significant challenges persist. Many households remain dependent on agriculture and forest-based livelihoods, which are prone to low productivity and environmental vulnerability (Prasad, 2014; Dey et al., 2022). Poverty, unemployment, and unequal access to development opportunities continue to affect tribal communities, especially in remote rural areas (Areeparampil, 1996; Munshi, 2012; Xaxa, 2008).

The present study addresses this gap through two primary objectives: examining the spatial distribution of tribal population across Ranchi's blocks and analyzing the socio-economic characteristics shaping tribal development. It is guided by the hypothesis that tribal concentration is higher in rural and forested areas, and that socio-economic conditions vary significantly across the district based on factors including education, occupation, infrastructure, and urbanization. The study aims to offer meaningful insights for policymakers and planners committed to inclusive and equitable tribal development (Sharma, 1978; Xaxa, 2008; Karade, 2009).

2. Literature Review

The study of tribal populations in India has attracted considerable attention from sociologists, anthropologists, geographers, and development scholars due to the unique socio-cultural characteristics and developmental challenges of tribal communities. Early works on tribal society emphasized the relationship between geographical isolation, cultural distinctiveness, and socio-economic marginalization. Ghurye (1963) argued that the relative isolation of tribal communities from mainstream social and economic processes contributed significantly to their educational and economic backwardness. Similarly, Elwin (1964) highlighted the intimate relationship between tribal societies and their ecological surroundings, emphasizing that tribal culture, livelihood systems, and social institutions are deeply rooted in local environmental conditions. He advocated the protection of tribal traditions and indigenous knowledge systems as essential components of sustainable development.

Several scholars have examined the demographic and spatial characteristics of tribal populations in India. Bose (1975) observed that tribal communities are predominantly

concentrated in forested, hilly, and ecologically sensitive regions, where geographical conditions have historically shaped their settlement patterns and economic activities. Vidyarthi and Rai (1977) further demonstrated that the physical environment of the Chotanagpur Plateau, characterized by forests and undulating terrain, has significantly influenced tribal habitation, cultural landscapes, and livelihood systems. Singh (1993), through the People of India project, documented the diversity of tribal communities and emphasized regional variations in their demographic, cultural, and socio-economic characteristics. Later, Singh (2002) established that factors such as forest cover, plateau topography, and accessibility play a crucial role in determining the spatial distribution and concentration of tribal populations across central India.

The socio-economic conditions of tribal communities have also been extensively studied. Sharma (1978) identified land alienation, indebtedness, poverty, and displacement as major obstacles to tribal development. Fernandes and Menon (1987) argued that historical forest policies and resource extraction practices resulted in the dispossession of tribal populations from their traditional resource base, thereby increasing their vulnerability. Corbridge (1988) further emphasized that structural inequalities embedded in colonial and post-colonial development processes have perpetuated socio-economic deprivation among tribal communities. Xaxa (1999; 2008) critically examined tribal development policies in India and concluded that despite constitutional safeguards and affirmative action programmes, tribal populations continue to experience exclusion from the benefits of economic growth due to weak implementation and persistent structural disadvantages.

Research focusing on Jharkhand and the Chotanagpur region has highlighted the strong dependence of tribal livelihoods on natural resources. Jewitt (2000) noted that increasing pressure on forests due to industrialization, urbanization, and population growth has adversely affected traditional subsistence systems. Prasad (2014) similarly observed that environmental degradation, shrinking forest resources, and changing land-use patterns have increased livelihood insecurity among tribal households in Jharkhand. Studies by Areeparampil (1996) and Bhengra, Munshi, and Xaxa (1998) documented the negative impacts of industrialization, mining, and development-induced displacement, which have disrupted traditional economic systems and social structures.

Recent studies have focused on migration, urbanization, and livelihood diversification among tribal populations. Munshi (2012) found that labour migration has emerged as a major coping strategy for tribal households facing agricultural stagnation and limited rural employment opportunities. Kumar and Minz (2018) observed that rapid urban expansion in Ranchi district has transformed traditional occupational structures and encouraged rural-to-urban migration. Likewise, Tigga (2019) reported that seasonal and permanent migration has become increasingly important for sustaining household incomes among tribal communities. At the local level, Islam et al. (2015) highlighted the socio-economic marginalization of tribal populations in Bundu block, where low literacy, unemployment, and dependence on subsistence agriculture remain widespread. Dey et al. (2022) demonstrated that Non-Timber Forest Products (NTFPs) continue to provide significant employment and income opportunities for tribal households in Angara and Namkum blocks, particularly for women. The available literature indicates that the socio-economic conditions of tribal populations are closely linked

to their geographical distribution, resource accessibility, and level of integration into regional economies. Although numerous studies have examined tribal development in Jharkhand, comprehensive geographical analyses focusing specifically on the spatial distribution and socio-economic dimensions of tribal populations in Ranchi district remain limited. Therefore, the present study seeks to bridge this gap by examining the spatial patterns of tribal concentration and analyzing the socio-economic characteristics.

3. Study Area

Ranchi district is situated in the central part of Jharkhand and forms an important component of the Chotanagpur Plateau region. The district lies approximately between 23°00' N and 23°50' N latitudes and 84°50' E and 85°55' E longitudes. The district covers an area of approximately 5,097 square kilometres and is characterized by undulating topography, residual hills, plateau surfaces, river valleys, and forested tracts. The average elevation ranges from 600 to 700 metres above sea level. The climate of Ranchi district is tropical monsoonal, with moderate temperatures due to its elevated location. Agriculture remains the principal occupation in rural areas, whereas urban centres are dominated by industrial, commercial, educational, and administrative activities. Ranchi district comprises both highly urbanized regions and predominantly rural tribal areas, making it an ideal study area for examining spatial and socio-economic variations among tribal populations.

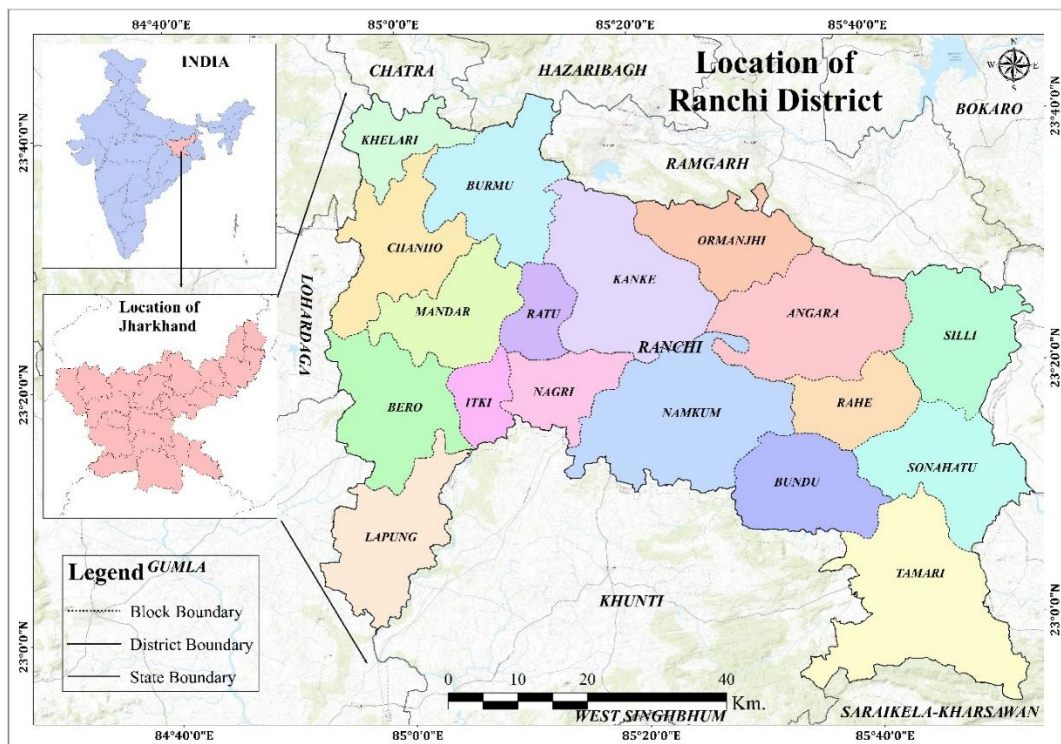


Figure 1: Location Map of Study Area

4. Database and Methodology

The present study is based entirely on secondary sources of data. Information has been collected from the following sources:

- Census of India 2011
- District Census Handbook, Ranchi
- Jharkhand Statistical Handbook
- Ministry of Tribal Affairs Reports
- Government publications and reports
- Research articles, books, and scholarly literature

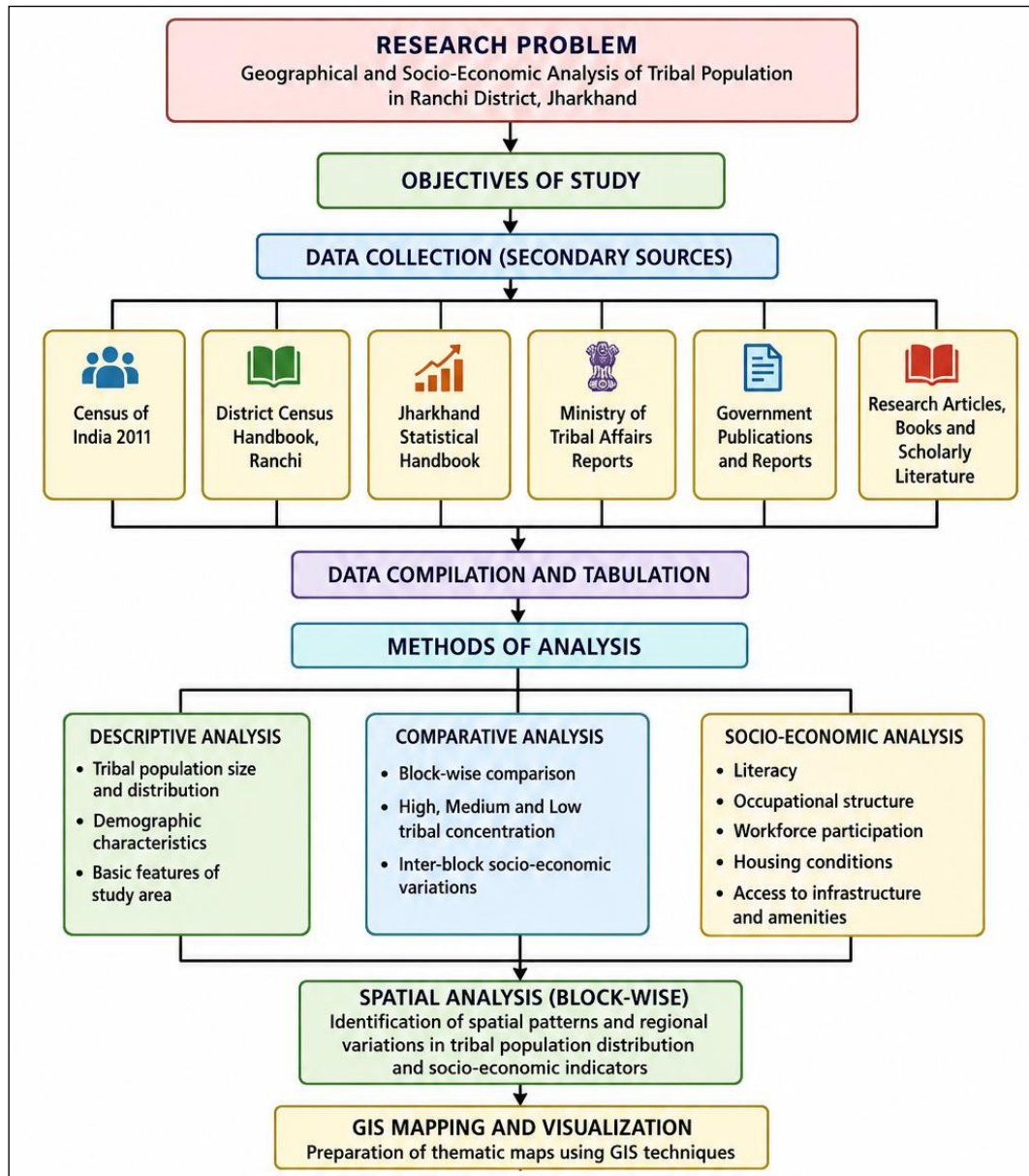


Figure 2: Methodological Flowchart

The study employs descriptive, comparative, and spatial analytical techniques. Block-wise tribal population data have been analyzed to identify areas of high, medium, and low tribal concentration. Socio-economic indicators such as literacy, occupational structure, workforce participation, housing conditions, and access to infrastructure have been examined to assess developmental disparities among tribal communities.

5. Spatial Pattern of Tribal Population in Ranchi District

The spatial distribution of tribal population in Ranchi district exhibits considerable geographical variation. The distribution pattern is largely influenced by historical settlement processes, physical geography, forest resources, agricultural suitability, accessibility, and the level of urbanization. According to the Census of India (2011), Scheduled Tribes constitute a significant proportion of the district's total population; however, their concentration varies markedly from one block to another.

Table 1: Components of ST Population

S.N.	Block	ST Population	ST Population Percentage in Total Population	ST Sex Ratio	Literacy Ratio
1	Angara	62,073	55.04	995	61.58
2	Bero	69,959	62.00	988	64.51
3	Burmu	35,245	39.20	979	60.88
4	Chanho	57,608	54.00	1007	61.41
5	Itki	24,241	48.40	1007	66.57
6	Kanke	81,280	33.30	991	64.81
7	Khelari	15,527	20.00	978	60.33
8	Lapung	46,797	74.20	1027	57.43
9	Mandar	77,143	60.00	1002	65.89
10	Namkum	87,472	60.00	1015	68.81
11	Ormanjhi	33,734	36.00	970	60.37
12	Ratu	34,676	45.20	1013	66.15
13	Silli	28,292	25.00	976	65.64
14	Nagri	38,326	50.10	1025	67.04
15	Bundu	37,042	60.00	982	63.19
16	Rahe	17,311	32.10	947	64.25
17	Sonhatu	18,455	24.00	953	64.68

18	Tamar	56,925	43.00	987	57.68
Total		760033		996	63.61

(Source: District Gazetteer)

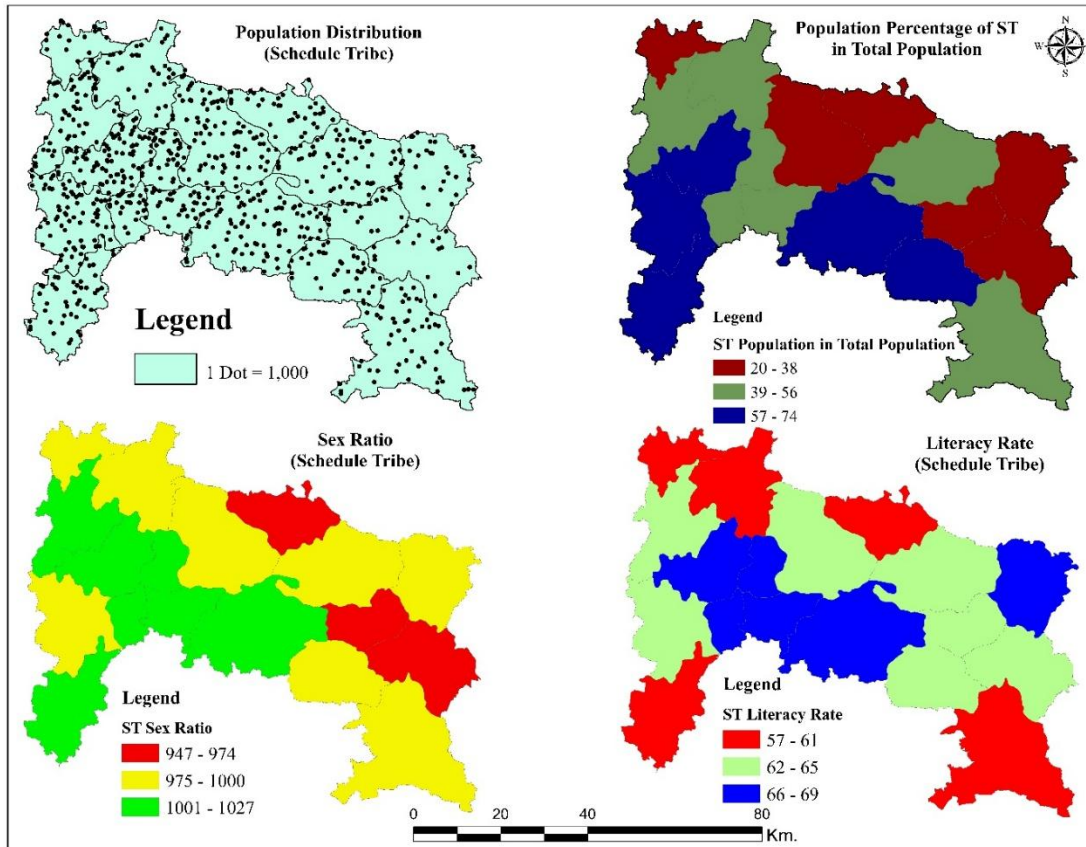


Figure 3: Population Components of ST Population

The eastern and southern parts of the district continue to represent the traditional tribal heartland. Blocks such as Tamar, Bundu, Sonahatu, Angara, Lapung, Rahe, and Mandar possess comparatively higher tribal concentration than other parts of the district. These regions are characterized by plateau topography, extensive forest cover, lower levels of industrialization, and predominantly rural settlements. The tribal communities inhabiting these areas maintain strong socio-cultural ties with land and forests, which continue to serve as important sources of livelihood.

Tamar block exhibits one of the highest concentrations of tribal population in the district. The Munda and Oraon tribes form the dominant tribal communities. Agriculture remains the principal economic activity, supplemented by forest-based livelihoods and wage labour. Similar conditions are observed in Sonahatu and Bundu blocks, where geographical isolation and limited urban influence have contributed to the preservation of traditional tribal settlement patterns.

Angara and Lapung also display significant tribal concentration. These blocks are characterized by dispersed rural settlements and substantial dependence on agriculture. Traditional community institutions continue to play an important role in social organization and resource

management.

In contrast, blocks such as Kanke, Namkum, Chanho, and Ratu exhibit moderate tribal concentration. These regions are undergoing rapid socio-economic transformation due to their proximity to Ranchi city. Improved road connectivity, educational institutions, healthcare facilities, and expanding employment opportunities have encouraged demographic diversification.

Urban Ranchi represents a distinctly different spatial pattern. The proportion of tribal population is comparatively lower due to large-scale migration of non-tribal populations associated with administrative, industrial, commercial, and educational activities. The expansion of Ranchi Municipal Corporation and peri-urban settlements has altered the demographic composition of surrounding areas.

The spatial pattern of tribal population therefore reflects the combined influence of physical geography, historical settlement patterns, economic opportunities, and urbanization processes. GIS-based mapping reveals a clear concentration of tribal populations in plateau and forested regions, whereas urbanized areas exhibit greater demographic heterogeneity.

Rural–Urban Variation

One of the most important features of tribal population distribution in Ranchi district is the pronounced rural-urban contrast. Rural areas continue to accommodate the majority of tribal households due to their dependence on agriculture and natural resources.

Rural tribal settlements are characterized by:

- High tribal concentration
- Traditional housing patterns
- Dependence on agriculture
- Forest-based livelihoods
- Strong kinship networks

Urban tribal populations, on the other hand, are increasingly engaged in:

- Government employment
- Private sector jobs
- Construction work
- Small businesses
- Informal sector activities

The increasing rural-to-urban mobility of tribal populations reflects changing aspirations, educational advancement, and economic diversification.

6. Socio-Economic Dimensions of Tribal Population

Educational Status

Education is a critical indicator of socio-economic development. The literacy rate among tribal communities in Ranchi district has improved considerably over the last two decades due to government initiatives, expansion of educational infrastructure, and increasing awareness regarding the importance of education. Despite this progress, substantial disparities continue to exist between rural and urban tribal populations. Urban tribal households generally possess higher literacy levels due to better access to schools, colleges, and vocational institutions. In contrast, remote tribal villages often face shortages of educational facilities, trained teachers, and transportation infrastructure. Female literacy among tribal communities has also improved significantly. However, gender disparities persist in many rural areas due to economic constraints, early marriage, and socio-cultural factors.

7. Occupational Structure

Agriculture remains the dominant occupation among tribal communities in Ranchi district. A large proportion of tribal households are engaged as cultivators, agricultural labourers, or marginal farmers. However, occupational diversification has increased considerably in recent years. Tribal youth are increasingly employed in:

- Construction activities
- Transport services
- Manufacturing industries
- Government services
- Private enterprises
- Self-employment activities

The growth of Ranchi city has generated new employment opportunities, contributing to occupational mobility among tribal populations.

Economic Conditions

The economic condition of tribal households varies considerably across the district. Rural tribal households remain highly dependent on agriculture, which is often characterized by small landholdings, low productivity, and vulnerability to climatic fluctuations. Seasonal migration has emerged as an important livelihood strategy for many households. Migrants seek employment in nearby urban centres and industrial areas to supplement household income. Remittances contribute significantly to household consumption and expenditure on education and healthcare. Nevertheless, poverty continues to affect a substantial proportion of tribal households, particularly in remote and less-developed blocks.

Housing Conditions

Housing conditions provide important insights into living standards. Government schemes

such as Pradhan Mantri Awas Yojana have contributed to improvements in housing quality among tribal households. However, significant disparities remain. While urban tribal populations increasingly reside in permanent structures with access to basic amenities, many rural households continue to live in semi-permanent dwellings with limited access to sanitation and drinking water facilities.

Health and Healthcare

Access to healthcare remains a major challenge in many tribal-dominated regions. Distance from healthcare facilities, inadequate transportation, shortage of medical personnel, and low health awareness contribute to health-related vulnerabilities. Maternal and child health indicators have improved due to government interventions; however, nutritional deficiencies and communicable diseases remain concerns in remote tribal areas.

Infrastructure and Basic Amenities

Infrastructure plays a crucial role in socio-economic development. Significant improvements have been observed in road connectivity, electrification, telecommunications, and educational infrastructure. Nevertheless, disparities remain evident between urban and rural regions. Tribal-dominated villages often experience inadequate healthcare facilities, poor market accessibility, and limited financial services.

8. Results and Discussion

The analysis reveals substantial spatial and socio-economic disparities among tribal populations in Ranchi district. The findings support the hypothesis that tribal population distribution is strongly influenced by geographical and socio-economic factors. The highest concentration of tribal population is observed in rural plateau blocks characterized by forest cover, agricultural dependence, and relatively low levels of urbanization. These regions continue to preserve traditional tribal lifestyles and settlement patterns.

Urban and peri-urban regions exhibit lower tribal concentration due to demographic diversification and in-migration of non-tribal populations. Urbanization has simultaneously generated new opportunities and challenges for tribal communities. Improved access to education, employment, and infrastructure has enhanced socio-economic mobility; however, urban expansion has also contributed to land-use changes and transformation of traditional livelihoods.

Educational attainment has improved considerably, particularly among younger generations. Increased participation in secondary and higher education has contributed to occupational diversification. Tribal youth are increasingly entering service-sector employment, government jobs, and entrepreneurial activities.

Despite these positive trends, socio-economic inequalities remain substantial. Many tribal households continue to experience poverty, limited healthcare access, inadequate infrastructure, and dependence on low-productivity agriculture. Regional disparities are particularly evident between urbanized blocks and remote tribal-dominated regions.

The findings indicate that development interventions have generated measurable

improvements in living conditions; however, inclusive and region-specific policies remain necessary to address persistent inequalities.

9. Conclusion

The present study examined the spatial pattern and socio-economic dimensions of tribal population in Ranchi district from a geographical perspective. The findings demonstrate that tribal population distribution is characterized by significant regional variation, reflecting the combined influence of physical geography, historical settlement patterns, and socio-economic transformation.

Tribal concentration remains highest in the rural plateau and forested blocks of the district, whereas urban and peri-urban regions exhibit greater demographic diversity. Urbanization and infrastructural development have transformed traditional settlement patterns and created new socio-economic opportunities for tribal populations.

The study further reveals that although literacy, occupational diversification, and infrastructure have improved considerably, substantial disparities continue to exist across different regions. Many tribal households remain dependent on agriculture and forest resources and continue to face challenges related to poverty, healthcare accessibility, and limited livelihood opportunities.

Sustainable tribal development in Ranchi district requires an integrated approach combining economic growth, social welfare, educational advancement, environmental conservation, and cultural preservation. Balanced regional planning and targeted policy interventions are essential for improving the quality of life and ensuring inclusive development among tribal communities.

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