
ORIGINAL ARTICLE



SPATIAL DISTRIBUTION OF SCHEDULED TRIBES POPULATION IN MAHARASHTRA

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ABSTRACT:

The study of demography is an important aspect to understand various characteristics of population in any region. Demography is the study of human populations with respect to their size, structure. For demographers, a population is a group of individuals that coexist at a point in time and share a defining characteristic such as residence in the same geographical area. Population refers to an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. The geographers have also shown some interest in calculating sort of an average point for population distribution within a country or an area. Spatial variation in tribal population trends across other communities can potentially affect how tribal people respond to global changes. For the present study Maharashtra was selected to look into their spatial distribution of population. To study the distribution and concentration of tribal and their decennial growth rate, the data were obtained from the 1991-2011 Censuses. In order to measure the present spatial distribution of tribal population in Maharashtra, a simple percentage has been calculated at district level. A cartographic technique has been applied using ArcGIS 10.2.2 software. The Districts i.e. Wardha (-3.18), Nagpur (-1.54), Bhandara (-9.04) has negative population growth and Nandurbar, Dhule, Jalgaon, Nashik, Aurangabad, Jalna, Beed, Pune Satara, Kolhapur, Sindhudurg and Mumbai Suburban districts are observed high population growth rate.

KEYWORDS: Spatial distribution, Population Growth, Scheduled Tribe,

I. INTRODUCTION:

Spatial distribution of population is one of the most important topics of human geography. Population distribution denotes the spatial pattern due to dispersal of population, formation of agglomeration, linear spread etc. The term distribution refers to the way the people are spaced over the earth's surface; the emphasis is that, on the pattern of actual place locations of a population (Chandana and Sidhu, 1980)

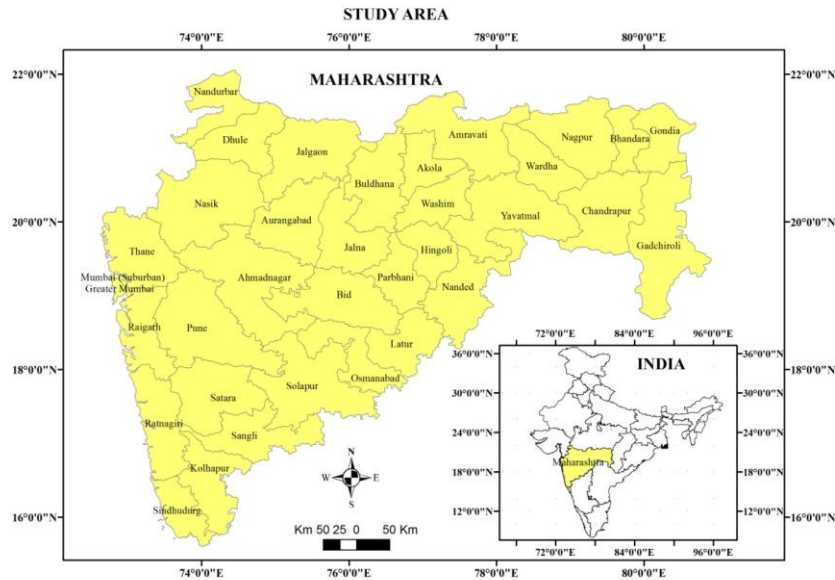
The constitution of Indian Union (Article 366) has defined the Scheduled Tribe as such tribes or tribal communities or parts or groups within such tribes or tribal communities as or deemed under article 342 to be Scheduled Tribe for the purpose of Constitution. Constitution order of 1950 declared 212 tribes located in the then states as 'Scheduled Tribes.' It is pertinent to point out that no single criterion has been adopted to distinguish tribal from the non-tribal population.

Population and the natural resources are the most important aspects of regional development. In this context distribution of tribal population is an important aspect. India is having second largest concentration of tribal population in the world. There are number of tribal communities in India, known by different names such as the Adivasis- the original inhabitants, Vanya Jati (live in forest), Adim Jati- primitive people, etc. Tribal community is very primitive and backward in India. The Indian tribes display a very high degree of ethnic diversity both in their racial composition and dialectal and linguistic affinity. There are 285 different tribal communities, which show an important index of their ethnic diversity. No less impressive is the pattern of their spatial distribution, it has been commonly observed that the tribes reveal strong tendencies of clustering and concentration in the hilly, forested and the geographically inaccessible tracts of the country (Ahmad, 2001). The tribal population of Maharashtra State is largely concentrated in the western hilly districts viz. Dhule, Nandurbar, Jalgaon, Nashik, Thane, Palghar (Sahyadri region) and in the eastern forest districts viz. Chandrapur, Gadchiroli, Bhandara, Gondia, Nagpur, Amravati and Yavatmal (Gondwana region).

Understanding of tribal population is needed to study distribution and population size at a fixed point in time, but also how this changes over time. Spatial variation in tribal population trends across other communities can potentially affect how tribal people respond to global changes. Only long-term studies can give reasonable answer.

II) STUDY AREA:

For the present study Maharashtra was selected to look into spatial distribution of population. The state of Maharashtra is located in the middle west of the country, lies between $72^{\circ}36'E$ to $80^{\circ}54'E$ longitude and $15^{\circ}45' N$ to $22^{\circ}6' N$ latitude (Map 1). The state is surrounded by Gujarat to the northwest, Madhya Pradesh to the north, Chhattisgarh to the east, Telangana to the south east, Karnataka to the south and Goa to the south west.



Map:1

III) DATABASE AND METHODOLOGY:

The study is mainly based on the secondary sources of data. To study the distribution and concentration of tribal and their decennial growth rate, the data were obtained from the 1991-2011 Censuses. In order to present spatial distribution of tribal population table and graph has been used. To represent population growth, cartographic techniques has been applied using ArcGIS 10.2.2 software.

For the decennial growth rate at district level, the simple growth rate formula has been employed:

$$\text{Growth Rate} = \frac{(P2 - P1)}{P1} \times 100$$

Where, P1 is Population of previous decade and P2 is Population of current decade.

IV) OBJECTIVE:

The objectives of the study are as follows:

- 1) To look into the spatial distribution of tribal population.
- 2) To examine the growth of tribal population in Maharashtra.

V) PHYSIOGRAPHY AND CLIMATE:

1) Physiography

Physiography of Maharashtra can be recognized as three physiographic regions, viz. i) The Maharashtra Plateau ii) The Western Ghats. iii) The Coastal Region of Konkan.

i) The Maharashtra Plateau:

The Maharashtra Plateau extends from the eastern border of the state, through Nagpur, Vidarbha, Khandesh and Maharashtra division up to the Ghats covering about seventy five percent area of the state. The eastern part covering Bhandara, Gadchiroli, Chandrapur, Nagpur and Wardha districts are occupied by the narrow alluvial plains of Vainganga, Painganga and Wardha river and has maximum altitude above sea level up to 300 m. The alluvial plain of the Tapi river valley, with east – west trend and maximum altitude of 300 m. MLS, occupies the northern part of the Amravati- Akola districts of Vidarbha and Jalgaon and Dhule district of Khandesh. The remaining part of the plateau is occupied by the valleys of Godavari, Bhima and Krishna rivers. The altitude of these plains ranges from 300 to 600 m above MLS.

The hills ranges traversing the plateau are the Satmala- Ajanta range, the Harichandra-Balaghat and the Mahadev hills. These ranges are connected with the Western Ghats on the west. Their altitude ranges between 600 and 900 m from MLS. Along the northern border of the Satpura state there are almost east- west trending hill ranges of the Satpura mountain.

ii) The Western Ghats:

The Western Ghats constitute the ranges of the Sahyadri mountain. The word 'Ghat' is used in the Marathi language when a winding road cuts through and across hill ranges. The Sahyadri ranges trend almost north- south and are parallel to the west coast of India along the entire western border of Maharashtra. The western Ghats are extended from the Tapi valley in the north down south to Cape Camorin. It is about 1600 km in length. Their average elevation ranges between 1000 and 1300 m. Some important hills are Satmal ridge is between Bhima and Krishna rivers. These major rivers of Maharashtra have their source in the Sahyadri. Their easterly slopes are generally gentler and the major river of Maharashtra flows in an easterly to south-easterly direction. The western slopes are steeper and have received heavy precipitation during monsoon.

iii) The Coastal Region of Konkan:

The narrow strip of coastal land between the Sahyadri and the Arabian Sea is called the Konkan coastal strip. It is barely 50 km in width; it is wider in the north and narrows to about 10 km. down in the south. River creeks and branches of the Sahyadri, which reach right up to the coast, dissect this coastline. The rivers of Konkan rise from the cliffs of Sahyadri and have a short swift flow into the Arabian Sea.

2) Climate:

Weather condition through the state is not the same. Three distinct seasons are recognized, viz. summer, rainy and winter. In the summer the highest temperature ranges between 40^o and 48^o C over a greater part of the state. In Konkan region weather is hot and humid. In Ghats temperature is low and some of the places at higher altitude like Mahabaleshwar, Matheran, Ambola and Khandala are popular hill stations with cool and

pleasant climate. In the region east of the ghats weather is mostly hot and dry and in Vidharbha region at some places like Nagpur, maximum temperature may reach up to 48⁰ C. In the rainy season which is from mid of June to October, the state receives rainfall from SW monsoons. The State experiences extremes of rainfall ranging from 6000 mm over the Ghats to less than 500 mm in the central semi – arid part of Maharashtra. The coastal region of Konkan receives 2000- 3000 mm rainfall, the Western Ghats zone 4000-6000 mm, the central semi arid part 450-550 mm and the Vidharbha region 1200- 1500 mm.

VI) Discussion:

Broadly the STs inhabit two distinct geographical areas – the Central India and the North- Eastern Area. More than half of the Scheduled Tribe population is concentrated in Central India.

i) Trends of Tribal Population in India:

The tribal population of the country, as per 2011 census, is 10.43 crore, constituting 8.6% of the total population. 89.97% of them live in rural areas and 10.03% in urban areas. The decadal population growth of the tribal's from Census 2001 to 2011 has been 23.66% against the 17.69% of the entire population (Table- 1 and Fig.1).

Table: 1.Trends in Proportion of Scheduled Tribal Population in India

Year	Total Population (in millions)	Scheduled Tribes Population (in millions)	Proportion of STs Population (%)
1961	439.2	30.1	6.9
1971	547.9	38.0	6.9
1981*	665.3	51.6	7.8
1991**	838.6	67.8	8.1
2001	1028.6	84.3	8.2
2011	1210.8	104.3	8.6
*Exclude Assam in 1981; **Exclude Jammu & Kashmir in 1991			

Source: Statistical profile of scheduled tribes in India 2013.

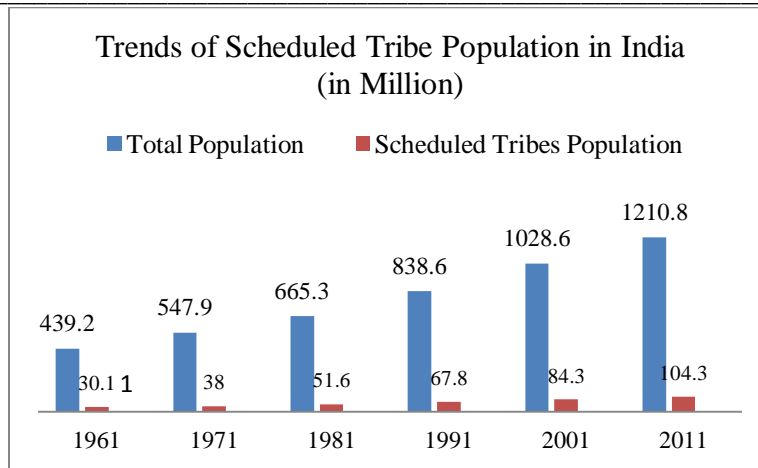


Fig. 1.

ii) Proportion of STs Population to Total Population in Maharashtra:

Maharashtra is the second largest state in India in terms of population and has geographical area about 3.08 lakh sq. km. As per population census 2011, the population of the State is 11.24 crore which is 9.3 per cent of the total population of India and is highly urbanised with 45.2 per cent people residing in urban areas.

Table: 2. Proportion of STs population to Total Population in Maharashtra (1961-2011)

Year	Total Population	Total Tribal Population	Proportion of STs population to Total Population (%)
1961	39,554	2,397	6.06
1971	50,412	3,841	7.61
1981	62,784	5,772	9.19
1991	78,937	7,318	9.27
2001	96,879	8,577	8.85
2011	1,12,374	10,510	9.35

(Source: Department of Tribal Development MH. Government)

iii) District Wise Spatial Distributions of Tribal Population in Maharashtra:

The Tribes are generally classified on the basis of territory, language, occupation, physical characteristics and cultural contact. Like the rest of India while considering the tribal population there is some difference with their nature. Majorly Dhule, Nandurbar, Jalgaon, Nashik, Bhandara, Gondiya, Nagpur, Amaravati and Yavatmad (Gondvan region) tribal people are live in Maharashtra.

Table: 3.
District Wise Population of Scheduled Tribe in Maharashtra
(2001 & 2011)

Sr. No.	District Name	ST Population		Growth* (%)
		2001	2011	
1.	SATARA	21896	29635	35.34
2.	RAIGARH	269124	305125	13.38
3.	MUMBAI	20666	25093	21.42
4.	MUMBAI SUBURBAN	70454	104560	48.41
5.	PUNE	261722	348876	33.30
6.	BID	24193	32722	35.25
7.	PARBHANI	35210	40514	15.06
8.	AHMADNAGAR	303255	378230	24.72
9.	HINGOLI	86898	111954	28.83
10.	THANE	1199290	1542451	28.61
11.	JALGAON	435951	604367	38.63
12.	AURANGABAD	100416	143366	42.77
13.	YAVATMAL	473370	514057	8.60
14.	WASHIM	70987	80471	13.36
15.	NASHIK	1194271	1564369	30.99
16.	AKOLA	100088	100280	0.19
17.	BULDANA	115156	124837	8.41
18.	WARDHA	154415	149507	-3.18
19.	JALNA	32103	42263	31.65
20.	BHANDARA	97718	88886	-9.04
21.	GONDIYA	196455	214253	9.06
22.	DHULE	443564	647315	45.93
23.	NAGPUR	444441	437571	-1.54
24.	AMRAVATI	356533	404128	13.35
25.	KOLHAPUR	21387	30206	41.24
26.	SANGLI	17855	18333	2.68

27.	SOLAPUR	68989	77592	12.47
28.	OSMANABAD	27857	36039	29.37
29.	LATUR	47836	57488	20.18
30.	NANDED	233596	281695	20.59
31.	CHANDRAPUR	375256	389441	3.78
32.	GADCHIROLI	371696	415306	11.73
33.	NANDURBAR	859574	1141933	32.85
34.	SINDHUDURG	4952	6976	40.87
35.	RATNAGIRI	20102	20374	1.35

Source: Registrar General and Census Commissioner, India.

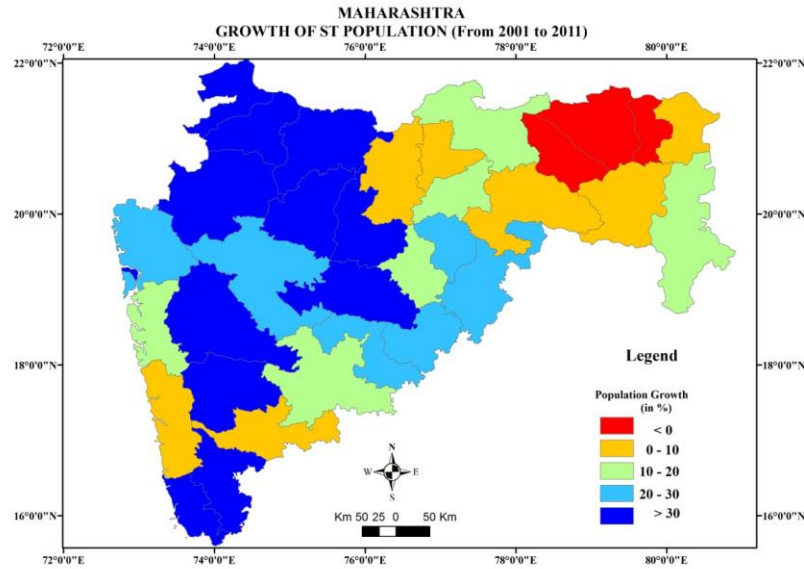
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iv) Growth of Scheduled Tribe Population:

Population Geographers have traditionally been concerned with the analysis of trends and patterns of growth in the world population. Any change in population size of an area over a certain period of time is expressed in the form of rate of growth per annum. The growth of Scheduled Tribe Population in Maharashtra (From 2001 to 2011) has been given in table 3 and map 2.

The spatial distribution growth rate of ST population is as follows:

- a) Reverse Growth (< 0%):** The districts i.e. Wardha (-3.18%), Nagpur (-1.54%), Bhandara (-9.04%) has been identify negative population growth.
- b) Low Growth (0 – 10%):** The low growth population growth has observed in the districts of Ratanagiri, Sangali, Buldhana, Akola, Yavatmal, Chandrapur and Gondiya.
- c) Moderate Growth (10 -20%):** In this category Moderate growth of population has been observed in the districts of Raigad, Solapur, Parbhani, Amravati and Gadchiroli.
- d) Moderately High Growth (20 – 30%):** The moderately high growth of the ST population were observed in the districts of Mumbai, Thane, Ahmad Nagar, Osmanabad, Latur, Nanded and Hingili.
- e) High growth (> 30%):** In the high growth of ST population has been observed in between 31.65 % to 48.40% in districts i.e. Nandurbar, Dhule, Jalgaon, Nashik, Aurangabad, Jalna, Beed, Pune Satara, Kolhapur, Sindhudurg and Mumbai Surbaban.



Map: 2

V) CONCLUSION:

The tribal population of the country, as per 2011 census, is 10.43 crore, constituting 8.6% of the total population. 89.97% of them live in rural areas and 10.03% in urban areas. Majorly Dhule, Nandurbar, Jalgaon, Nashik, Bhandara, Gondiya, Nagpur, Amaravati and Yavatmad (Gondvan region) tribal people are live in Maharashtra.

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The high growth of ST population has been observed in between 31.65 % to 48.40% in districts i.e. Nandurbar, Dhule, Jalgaon, Nashik, Aurangabad, Jalna, Beed, Pune Satara, Kolhapur, Sindhudurg and Mumbai Surbaban.

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