



Spatio-Temporal Analysis of Population Growth in Jalna District

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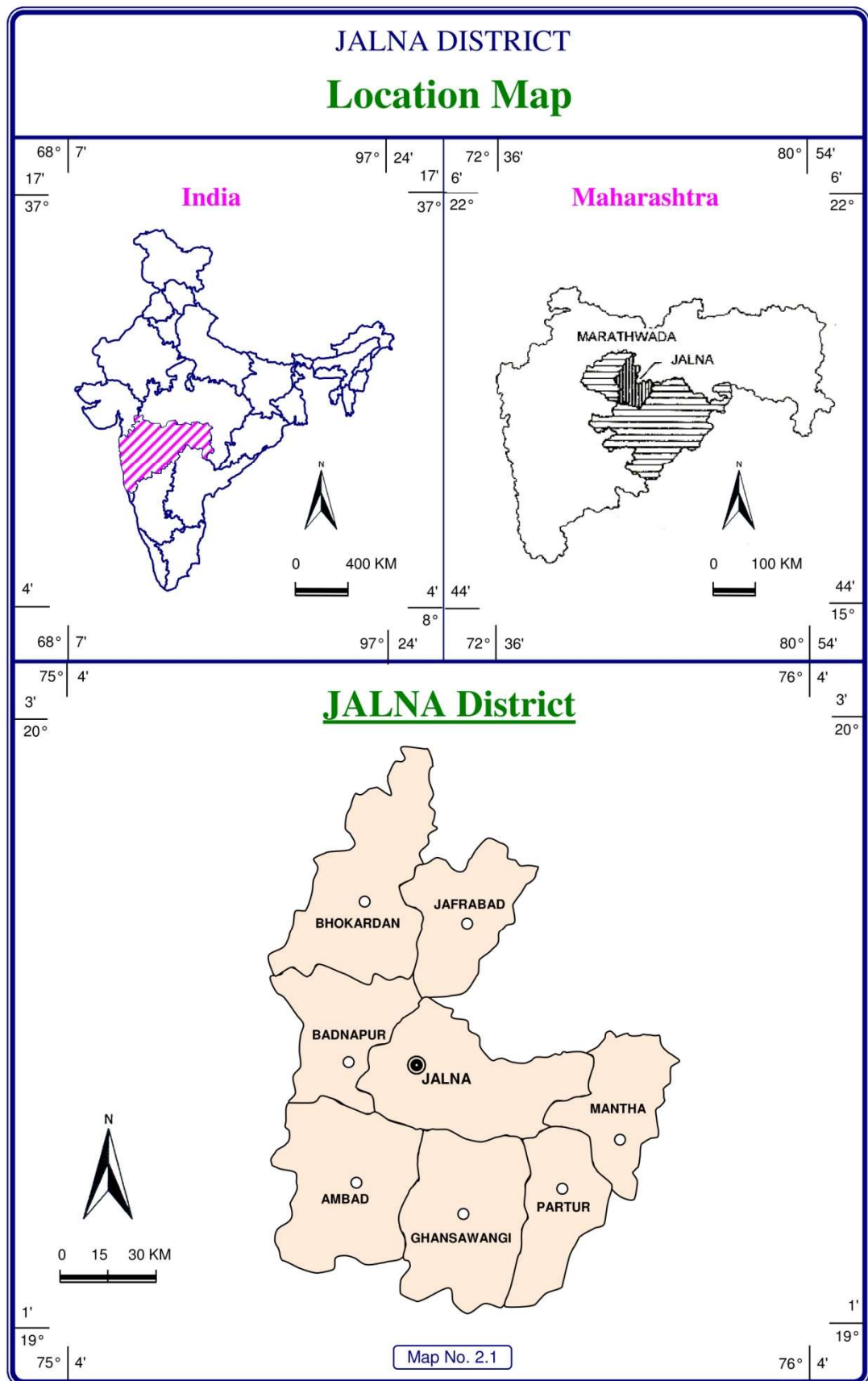
Introduction:

It is very difficult to estimate possible population and their growth rates. Early Paleolithic people had to be dispersed in relative small groups. The rough estimate would be one person per three square kilometer of area, because the human deaths occurred on account of diseases and famines. After the onset of civilization, population growth was phenomenal. This was due to increase in food production, domestication of animals and plants and rarer famines. The present rate of increase in world population is estimated at 1.8 percent per year. The present growth rate can't possibly last much longer without exhausting simple living space as well as the resources of the earth.

A decisive factor in the people - resource ratio is the coupling of increased longevity of the marked rise in the per capita consumption of food, material and energy. A few nations only have faced the problems of restricting their rates of growth to bring better balance between population numbers and resources.

Study Region:

For the study Jalna district has been selected. It is located between 19°15' and 20°32' North latitudes and 75°36' to 76°45' east longitudes. The north-south extension of Jalna district is 150 Kms and east-west stretch of the district is 110 kilometers. The Jalna district has a significant location on Deccan plateau. Except Ajanta and Satamala range and river basins, majority part of the Jalna district comes under plateau region. The region has major portion under flat topography, hence it supports high concentration of population.



**Objectives:**

Prime objective of this research paper is to find out the spatio temporal pattern of population growth in Jalna district.

Database & methodology:

For the present study only secondary data has been considered. Jalna District Socio-Economic Abstracts, Jalna district census handbook has been used to collect statistical data of the district.

Analysis:

Table 1 indicates the growth of population in Jalna district from the decade of 1901 to 2011. To know the trend of population growth last 110 years has been considered purposively.

Table 1
Scenario of Population Growth of Jalna District
(Year 1901 to 2011)

Year	Total Population			Growth Rate in %		
	Rural	Urban	Total	Rural	Urban	Total
1901	337,394	20,270	357,664	--	--	--
1911	410,505	18,993	429,498	21.67	-6.30	20.08
1921	348,455	16,912	365,367	-15.12	-10.96	-14.93
1931	439,159	28,483	467,642	26.03	68.42	27.99
1941	478,206	45,312	523,518	8.89	59.08	11.95
1951	494,416	77,415	571,831	3.39	70.85	9.23
1961	633,407	89,735	723,142	28.11	15.91	26.46
1971	775,869	121,156	897,025	22.49	35.02	24.05
1981	870,587	159,591	1,030,178	12.21	31.72	14.84
1991	1,133,697	230,728	1,364,425	30.22	44.57	32.45
2001	1,305,115	307,865	1,612,980	15.12	33.43	18.22
2011	1,581,617	377,429	1,959,046	21.19	22.60	21.46

Source: Computed by Researcher



For the analysis each area i.e. rural, urban and total has been considered separately and then combined.

General Population Growth (Total):

General population statistics of the district reveals that, the population of the district in 1901 was 3,57,664 and as per 2011 census the population has reached upto 19,59,046. It means during this period (110 years), the population has increased by 5.48 times. The population of the district was constantly increasing since 1901 to 2011 except 1921 census where the population of the district was decreased. If the percentage increase of population is considered, it reveals that, highest percentage growth in population is observed for 1991 census (32.45%) whereas lowest growth has been observed for 1951 (9.23%). Negative growth rate has been also observed for the census 1921, i.e. 14.93%. In the 1911-1921 decade, Jalna suffered from cholera, malaria, influenza, epidemic, and plague which took a heavy toll of life.

During the last hundred and ten years tremendous change has been observed in the growth of population of the district. The population of Jalna has increased more than double itself since 1961. It has increased from 7,23,142 in 1961 to 16,12,980 in 2001. Below 15% positive change in growth of population was observed in 1941, 1951 and 1981 decades. About 15% to 25% positive change in the growth of population was received in 1911, 1971, 2011 and 2001 decade. Above 25% positive change in the growth of population was found in 1931, 1961 and 1991. The district accounts 1.74% population to the Maharashtra state and Jalna has higher population growth rate (21.46%) than the Maharashtra state (15.99%) during last decade (2001 to 2011).

Rural Population Growth:

Out of the total population most population of the district has been situated in rural area. As per census 2011, 80.73% population resides in rural area in Jalna district.

According to 1901 census, total rural population of the district was 3,37,394. The rural population of the district was constantly increasing since 1901 to 2011 except 1921 census where the rural population of the district was decreased by 15.12%. It means in 1921 the rural population of the district was decreased with 62,050 in compare to 1911 census. The rural population of the district increased upto double in



1971. It has taken 70 years, means since 1901 to 1971 the growth rate of population was not too much higher.

The highest increase (30.22%) in population was observed in 1991 census in comparison to 1981 census. In 1981, rural population of the district was 870587 and it increased upto 1133697 in 1991. It means the rural population of the district increased by 263110. The lowest decadal growth rate in rural population of the district has been observed in 1951 and that was 3.39% whereas the highest positive growth was observed in 1991 census (30.22%). Growth of rural population shows positive decadal variation except 1921; where it showed negative decadal variation i.e.-15.12%.

Below 20% decadal variation in rural population was observed in the decade of 1941, 1951, 1981, and 2001 whereas 20% to 30% growth of decadal variation in rural population has been observed in 1911, 1931, 1961, 1971 and 2011 decades. Above 30% decadal variation was found in 1991 only. In 1901 the rural population of the district was 337394 and according to 2011 census it reached up to 1581617. It means during the period of hundred years the rural population of the district has been increased by 4.69 times. The percentage growth of rural population of the district (21.19%) is higher than the state average (10.36%).

Urban Population Growth:

In the beginning urban population of the district was very less. In 1901 the urban population was 20,270 only. In 1901, there was only one town in the district and that is Jalna. In first two decades, i.e. 1901 to 1911 and 1911 to 1921 the population of the urban area decreased due to cholera, malaria, and plague disease. At present, there are 8 towns in the district and since 1931 the urban population of the district is constantly increasing.

The urban population of the district increased two times in 1941 and now a days the urban population of the district is 3.77 lakh. The lowest positive growth in urban population was recorded in 1961 (15.91%) while the highest growth in urban population was noticed in 1951 and it was 70.85%. The decade 1911 and 1921 show the negative growth in the percentage of decadal variation. On the other hand rest of the decades shows positive change in the percentage of decadal variation. Below 40%



positive change in the decadal variation was found in the decades of 1961, 1971, 1981, 2011 and 2001 whereas about 40% to 60% change in the percentage of decadal variation was introduced in the decade of 1941 and 1991. Above 60% change in the percentage of decadal variation was found in the decade of 1931 and 1951. The percentage growth of urban population of the district (22.60%) is lower than the state average (23.64%).

Conclusion:

General population statistics of the district reveals that, the population of the district in 1901 was 3,57,664 and as per 2011 census the population has reached upto 19,59,046. It means during this period (110 years), the population has increased by 5.48 times. This shows that, there is dynamic increase in population which is not good in sense of population and resources ratio. The infrastructural facilities, hospitals, educational institutes, assurance of job, and increasing industrialization are the responsible factors for the rapid growth in urban population.

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