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A GEOGRAPHICAL STUDY OF POPULATION DISTRIBUTION AND DENSITY IN AHMEDNAGAR DISTRICT

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ABSTRACT

Present research paper is made to determine and analyses the spatial patterns of population density and distribution in the Ahmednagar district of Maharashtra during the period between 2001-2011. Present study is mainly based on secondary sources of data which is collected from Primary Census Abstract of Ahmednagar District, 2011. Population distribution refers to the actual pattern of spacing of units of individuals. Distribution of population mainly depends upon the physical and human factors, viz. physiography, climate, rainfall, soil, drainage pattern, economic resources, stage of economic growth etc. It is observed that the highest population concentration was found in central part, high to moderate in the northern part and relatively low was found in southern part of district. It is clear from the study that there is found close relationship between relief feature, climate, rainfall, soil, availability of water, transportation network, urbanization, industrialization and distribution of population. There are fourteen tahsils in the Ahmednagar district. In these tahsils, the population aspects are not uniform and the reasons for this have been sought. A brief study of the population density and distribution has been conducted by tahsil-wise.

Keywords:- Population Density and Distribution, Spatial Patterns, literacy, Growth rate, Economic Activities.

INTRODUCTION

The practice of census is as old as the

regime. History has it that Egyptians, Greeks, Romans, Hebrews, Persians counted the population from time to time. Such calculations have been in China-Japan since ancient times. In general, such calculations were made to understand the number of civilians or taxpayers of a reasonable age. Counting the population of the entire city began in Europe in the fifteenth and sixteenth centuries. It is mentioned that such population census of the city of Madras was done in 1687. Then the census of national nature started. The first census in Sweden was conducted in 1750. The census is conducted every ten years in the United States of America from 1790 and 1801 in Great Britain. The first census was conducted in India in 1872 and then every ten years from 1881. Some nations take censuses every five years, while others do censuses whenever they feel overwhelmed. Since this work is very costly, it is customary in most nations to conduct a census every ten years. Initially, information about each family was collected at the time of the census, but later information about each person began to be collected. Such a personal national census was first conducted in Belgium in 1846 and in 1850 in the United States. Gradually all nations began to take such censuses. A total of 180 census was conducted in all the world around 1960.

The population data are not only required for nation, but also for its geographic sub-divisions and socio-economic and cultural categories. Distribution refers to the ways people get located in their special spread, where as density refers to ratio between the size of population (population number) and the area (i.e. man-land ratio).¹

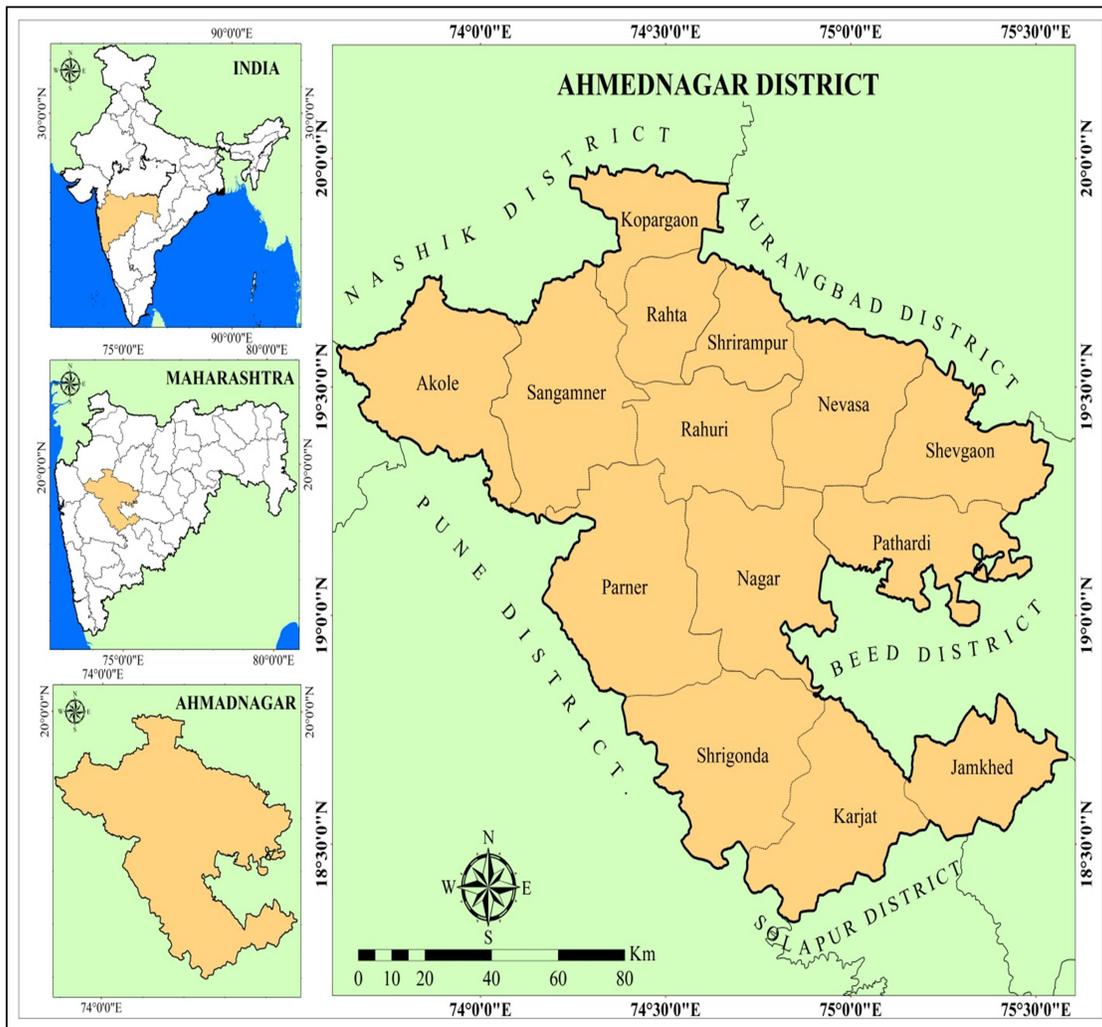
Study Area

Ahmednagar district is known for land of saints. Ahmednagar district is the largest district in the state of Maharashtra. Ahmednagar district is lying between 18° 2' to 19° 9' North latitudes and 73° -9' to 75° -5' East longitudes. It is situated partly in the upper Godavari basin and partly in the Bhima basin, the inter-fluve in between forming the extensive Ahmednagar plateau. The district is very irregular but compact in shape and somewhat resembling a slanting crosses with a length of 200 km and breadth of 210 km. It is bounded on the north by Igatpuri, Sinnar and Yeola talukas of Nashik district; on the North-East by Vaijapur, Gangapur and Paithan talukas of Aurangabad district on the East by Georai, Bhir and Ashti talukas of Bhir district; Bhum and Paranda talukas of Osmanabad district; on the south by the Karmala taluka of Solapur district; and on the South-West by Murbad and Shahapur

talukas of Thane district. It has the total area 17035 sq.km.

Ahmednagar district is the largest district in Maharashtra. Ahmednagar district is at the forefront of today's situation. The Saibaba Temple at Shirdi in Rahata Taluka in the same district. The district has the

highest sugar mills. The first co-operative sugar factory in Asia was set up in Prawaranagar. The village of 'Ralegan Siddhi' created an ideal of water management in the district, while the 'Hivare Bazar' came to known as the ideal village.



Map No. 1.1 Location Map of Ahmednagar District

Objectives of the study

- 1.To Study the Geographical Condition of Ahmednagar District.
- 2.To identify factors responsible for rapid growth of population.
- 3.To define various demographic terms such as birth rate, death rate sex ratio, density, literacy etc.
- 4.To analyze causes and consequences of in and out migration in study area.
- 5.To suggest suitable measures and remedies for population planning.

Hypothesis

Following hypotheses have been formulated in this study:-

1. Geographical and Socio-economic factors affecting on population density and distribution.
2. Governments play an important role in the population distribution.
3. Population planning Programmes resulted population pattern changes in study Area.
- 4.Tahsil-wise family planning Programmes not will be Funded similarly everywhere in Ahmednagar District.

METHODOLOGY

Methodology is a technique, which is followed to prove hypotheses. For the present study, the Agriculture and Census Data of 2001 and 2011 has been used. The General and

Geographical information of Ahmednagar district was collected from Government Gazetteer and Census Handbook of 1991, 2001, 2011 and website of Ahmednagar district.

RESULT AND DISCUSSION

The results section is a section containing a description about the main findings of a research, whereas the discussion section interprets the results for readers and provides the significance of the findings. This section should not repeat the results section.

Population Distribution-

As per census 2011, the total population of Ahmednagar district was 41.24 lakhs and the population density is 232 per square kilometer. It has 32.37 Lakhs in rural areas and 80.37 out of urban population. The proportion of the female population per thousands of male was 941. out of total population 12.00 per cent are related to SC and for ST communities 7.51 per cent (**Table 1.1**). The district has a high literacy rate of 73.30 per cent.⁴

The structure of workforce in Ahmednagar district reveals that 69.70 percent of workers are in the agricultural sector. While about 44.34 percent are cultivators, 25.3 percent are agricultural labourers. The total number of persons in the work force in Ahmednagar

district was 18.57 lakhs (main plus marginal workers). However the contribution of this sector to District Domestic product is 27 percent. It can thus be observed that agriculture is the dominant activity in Ahmednagar district. The tahsil-wise area, number of villages, Gram Panchayats and population of Ahmednagar district is presented in **Table 1.1**. It can be seen from the table that the population of the district was 41.24 lakhs with 14.71 percent of the population in Ahmednagar taluka which has only 8.99 percent of area of the district.⁵

Population 2011, in 2011 Ahmednagar had population of 4,543,083 of which male and female were 2,348,802 and 2,194,281 respectively. In 2001 census, Ahmednagar had a population of 4,040,642 of which males were 2,083,053 and remaining 1,957,589 were females. Ahmednagar district population constituted 4.04 percent of total Maharashtra population. In 2001 census, this figure for Ahmednagar District was at 4.17 percent. There was change of 12.43 percent in the population compared to population as per 2001. In the previous census of India 2001, Ahmednagar District recorded increase of 19.80 percent to its population compared to 1991 Population Density 2011. The initial provisional data released by census India 2011, shows that density of Ahmednagar

district for 2011 is 266 people per sq. km. In 2001, Ahmednagar district density was at 237 people per sq.km. Ahmednagar district administers 17.048 square kilometers of areas. Literacy Rate 2011 Average literacy rate of Ahmednagar in 2011 were 80.22 compared to 754.30 of 2001. If things are looked out at gender wise, male and female literacy were 88.81 and 71.15 respectively. For 2001 census, same figures stood at 85.70 and 64.35 in Ahmednagar District. Total literate in Ahmednagar District were 3,213,330 of which male and female were 1,826,597 in its district.⁷

The sex ratio in Ahmednagar district is unequal. The number of women behind every thousand men seems to be declining day by day. The ratio of 940 in 2001 has come down to 934 in 2011. The main reason for this is the secondary place of women in the society. Menstrual culture denies women the benefit of development. They do not have social, as well as health benefits. As a result, the number of women is on the rise. The birth rate of women is already low, now it is declining and the rate of decline is also strong. In 1961, there were 976 girls behind 1,000 boys in the 0-6 age group. The decline has reached 914 in 2011. These numbers are like worrying. Because it has to do with denying birth to girls. The technology of

gender selection is spreading widely. He has come very close to home. As a result, the number of users is increasing. This is definitely not a matter of social interest.⁸

According to the 2011 census, the total population of Ahmednagar district is 4543159 out of them 79.91% of the population is rural and the remaining 20.09 % of the population lives in urban areas. The proportion of rural population behind each village is 2296 persons as per census 2011. Average literacy rate in Ahmednagar district as per census 2011 is 88.79% of which males and females are 93.84% and 83.47% literates respectively. In actual number 720,640 people are literate in urban region of which males and females are 391,097 and 329,543 respectively. Rural Population 2011 as per 2011 census, 79.90% population of Ahmednagar districts lives in rural areas. The total Ahmednagar district population living in rural areas is 3,630,012 of which males and females are 1,877,105 and 1,752,907 respectively. In rural areas of Ahmednagar district, sex ratio is 934 females per 1000 males. If child sex ratio data of Ahmednagar district is considered, figure is 837 girls per 1000 boys. Child population in the age 0-6 is 435,862 in rural areas of which males were 237,327 and females were 198,535. The child population comprises 12.64% of total rural

population of Ahmednagar district. Literacy rate in rural areas of Ahmednagar district is 78.04% as per census data 2011. Gender wise, male and female literacy stood 87.53 and 68.03 percent respectively. In total, 2,492,690 people were literate of which males and females were 1,435,315 and 1,057,375 respectively.⁹

Agricultural and allied census Ahmednagar is the biggest district of Maharashtra in terms of area and population. The total geographical area of the district is 17.41 lakh ha. The net cropped area is 12, 56,500 ha, out of which an area of 3, 30,000 ha. (26.27%) is under canal (84.000 ha) and well irrigation. About 9, 26,500 ha. (73.73%) area is rain fed. The area under Kharif crops is 4, 60,000 ha (36.6 percent) while

7, 58,000 ha (60.32 percent) area is under Rabi crops. A multiple cropping system is followed on 1, 10,500 ha. area. A total of 8.73 percent area of the district is under forest.¹⁰

● Population Density

Each unit of land has limited capacity to support people living on it. Hence, it is necessary to understand the ratio between the numbers of people to the size of land. This ratio is the density of population. It is usually measured in persons per sq. Km.

$$\text{Density of Population} = \frac{\text{Population}}{\text{Area}}$$

For example, area of Region X is 100 sq km and the population is 1,50,000 persons. The density of population is calculated as: $1,50,000 \text{ Density } 100 = = 1,500 \text{ person/sq km.}^{11}$

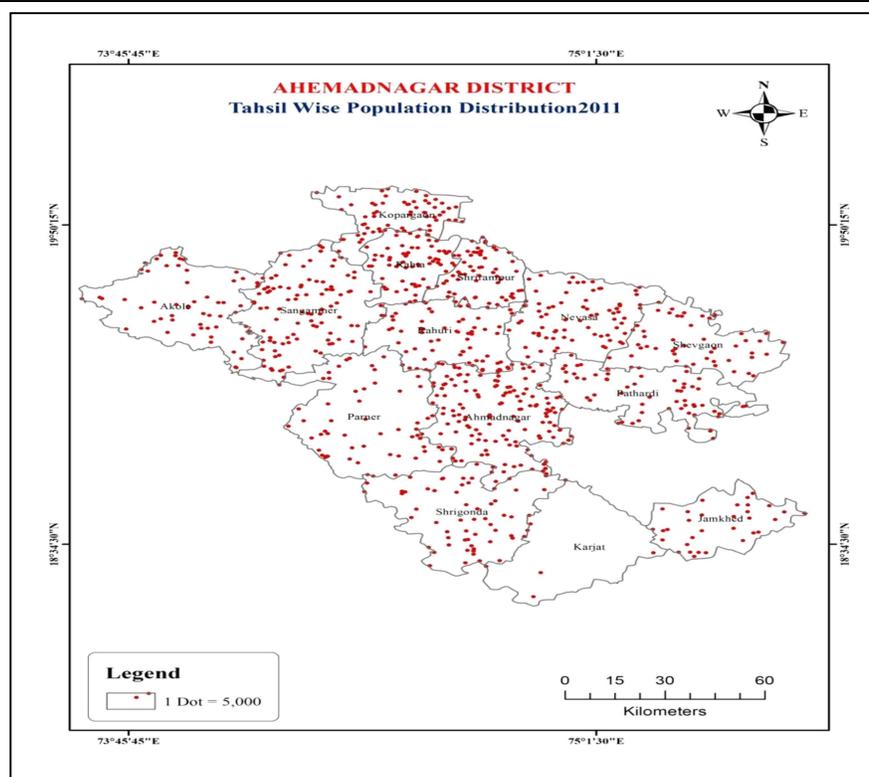
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Ahmednagar district for 2011 is 266 people per sq. km. In 2001, Ahmednagar district density was at 237 people per sq. km. Ahmednagar district administers 17,048 square kilometers of areas. **(Refer Table 1.3).**

Table 1.1 Ahmednagar District: Tahsil-wise Population Distribution, 2011

| Sr. | Tahsil | 1991 | 2001 | 2011 |
|-----|------------|--------|--------|--------|
| 1 | Ahmednagar | 482884 | 606690 | 683808 |
| 2 | Parner | 214064 | 246552 | 274128 |
| 3 | Pathardi | 185845 | 214872 | 288021 |
| 4 | Karjat | 184331 | 205674 | 23534 |
| 5 | Jamkhed | 119278 | 134216 | 158606 |
| 6 | Shrigonda | 235706 | 277356 | 315948 |
| 7 | Shrirampur | 340327 | 256458 | 287620 |
| 8 | Shevgaon | 170507 | 203676 | 245674 |
| 9 | Newasa | 273075 | 326698 | 357368 |
| 10 | Rahuri | 252570 | 294924 | 332579 |
| 11 | Sangamner | 354808 | 441439 | 489263 |
| 12 | Akole | 22215 | 266638 | 292319 |
| 13 | Kopargaon | 337387 | 277170 | 302823 |
| 14 | Rahata | ----- | 288279 | 319622 |

Source: Census Handbook of Ahmednagar 2011.



Map 1.2 Tahsil-wise Population Distribution of Ahmednagar District, 2011

Table 1.2 Tahsil-wise Population Density, Literacy Rate and Sex-ratio in District

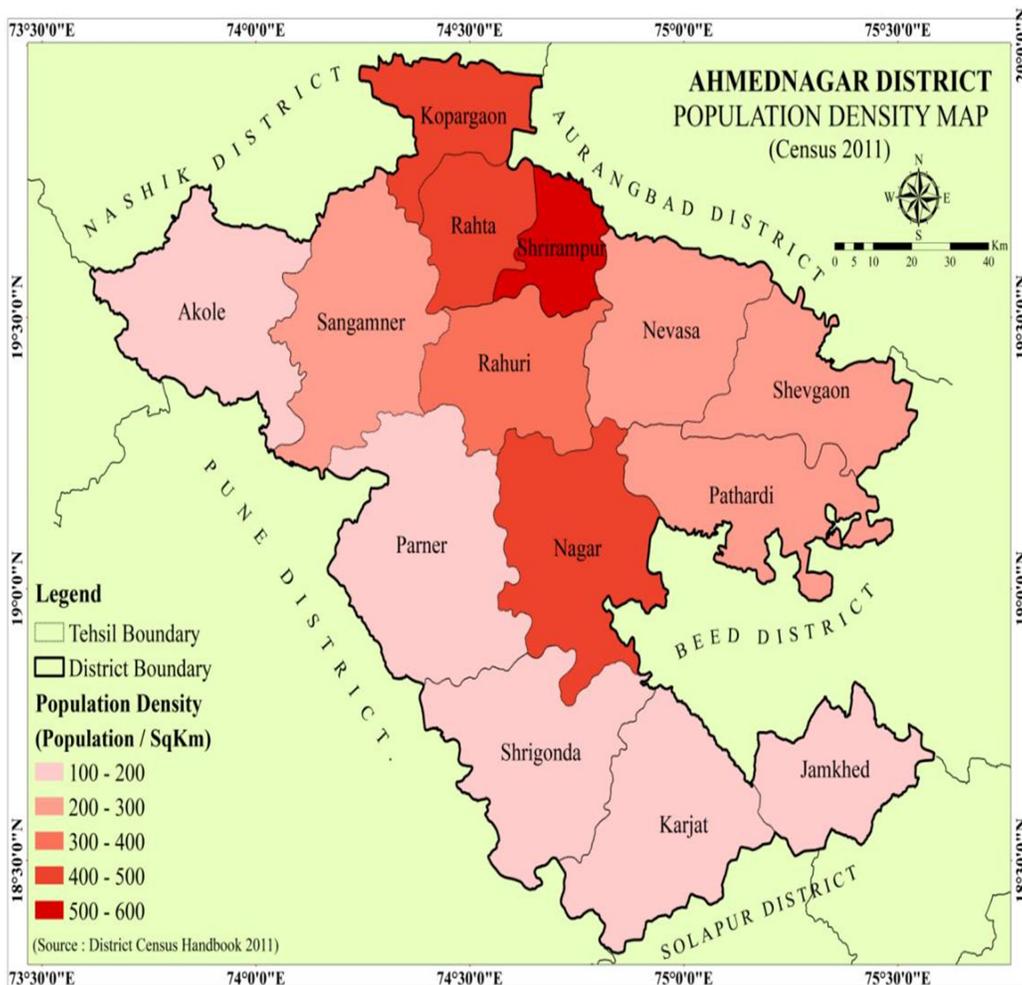
| Sr. No. | Tahsil | Area (Sq.K.M.) | Density (Persons per Sq.km) | | | Literacy Rate | | | Sex-ratio |
|---------------|------------|----------------|-----------------------------|--------|-------|---------------|--------|-------|-----------|
| | | | Male | Female | Total | Male | Female | Total | |
| 1 | Ahmednagar | 1605.74 | 221 | 205 | 426 | 91.47 | 80.9 | 86.35 | 866 |
| 2 | Parner | 1930.28 | 73 | 69 | 142 | 84.23 | 66.78 | 75.64 | 844 |
| 3 | Pathardi | 1214.10 | 110 | 102 | 213 | 84.98 | 63.85 | 74.74 | 827 |
| 4 | Karjat | 1503.61 | 82 | 75 | 157 | 82.57 | 64.98 | 74.11 | 823 |
| 5 | Jamkhed | 878.62 | 94 | 86 | 180 | 82.31 | 62.26 | 72.62 | 820 |
| 6 | Shrigonda | 1603.81 | 102 | 95 | 197 | 84.09 | 67.88 | 76.25 | 835 |
| 7 | Shrirampur | 569.87 | 257 | 247 | 505 | 89.27 | 74.80 | 82.12 | 865 |
| 8 | Shevgaon | 1031.85 | 122 | 116 | 238 | 84.15 | 63.42 | 73.94 | 843 |
| 9 | Newasa | 1343.43 | 138 | 129 | 266 | 86.53 | 70.05 | 78.51 | 847 |
| 10 | Rahuri | 1035.11 | 161 | 151 | 312 | 87.42 | 71.65 | 79.74 | 838 |
| 11 | Sangamner | 1705.06 | 147 | 139 | 286 | 87.58 | 71.68 | 79.96 | 856 |
| 12 | Akole | 1505.08 | 98 | 96 | 194 | 84.09 | 65.50 | 74.86 | 894 |
| 13 | Kopargaon | 725.16 | 215 | 202 | 417 | 87.58 | 71.68 | 79.84 | 888 |
| 14 | Rahata | 759.19 | 218 | 205 | 422 | 88.72 | 75.13 | 82.08 | 845 |
| Dist. Average | | 17410.91 | 135 | 126 | 261 | 86.07 | 69.35 | 77.91 | 934 |

Source: District Socio- economic Review 2012 – 13

Table 1.3 Tahsil -wise Population Density in District

| Sr. | Tahsil | 1991 | 2001 | 2011 |
|-----|--------------|------------|------------|------------|
| 1 | Ahmednagar | 307 | 370 | 426 |
| 2 | Parner | 114 | 132 | 142 |
| 3 | Pathardi | 144 | 162 | 237 |
| 4 | Karjat | 124 | 136 | 156 |
| 5 | Jamkhed | 135 | 147 | 181 |
| 6 | Shrigonda | 145 | 165 | 197 |
| 7 | Shrirampur | 422 | 446 | 505 |
| 8 | Shevgaon | 156 | 187 | 238 |
| 9 | Newasa | 212 | 253 | 266 |
| 10 | Rahuri | 247 | 266 | 321 |
| 11 | Sangamner | 210 | 265 | 287 |
| 12 | Akole | 137 | 170 | 194 |
| 13 | Kopargaon | 323 | 362 | 418 |
| 14 | Rahata | ---- | 414 | 421 |
| | Total | 198 | 240 | 266 |

Source:- District Census Handbooks of 1991, 2001 and 2011



Map No. 1.3 Population Density of Ahmednagar District

CONCLUSIONS

Census provides village level data on several socio-economic aspects. It is useful for study of several social and economic aspects of several administrative regions. Here is an attempt to classify villages of tahsil in revenue circles and understand socio-economic differences in several characteristic of population.

One hundred years ago the population of the city was only 33,878 and the population of the district was 925876. Now the population of the city has gone up to four and a half lakhs, while the population of the district has gone up to 45 lakhs. That is, the population of the city has increased tenfold, while the population of the district has increased fivefold.

According to the Gazetteer published by the government, the population of the city in 1901 was 35,784, while the population of the district was 820346. Over the next 10 years, the city's population decrease by about 2,000 instead of growing. From 1911 to 1921, the population of the district also declined sharply. In 1921, the population of the district was only 7,19,37. Many died due to the outbreak and drought of influenza and other diseases. Some migrated to other provinces to find employment. So in the population There was a drastic reduction.

From 1971 to 2001, the population almost

doubled. In 1971, the population of the Nagar city was 1,48,405, while the district had 17,75,969. In 2001, it reached 3,05,000 and 40 lakh respectively. The city expanded in 1971 to 31.76 square kilometers. It has now gone beyond 85 square kilometers. However, the city has not expanded in proportion to its population. The growth of the city has been stunted by the military boundaries. Given the proposed population growth in the coming years, the city will be insufficient to accommodate everyone.

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