Geographical Study of Population Characteristics in Gadag District, Karnataka State, India

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Abstract: Population is a curse to some countries and a boon to some countries; it depends on the nature of the population. In short, population is a resource that depends on quantitative and qualitative aspect. The present research paper focuses on population parameters, i.e. growth of population, literacy, density and sex ratio of Gadag district. This article is fully based on secondary data. The secondary data was collected from Gadag district census report of 2001 and 2011. Apart from those data additional information gathered through the various reference books, research articles and internet information for this article. Human resource is the main theoretical base of this article.

Keywords: Population, Curse, Boon, Parameters, Literacy, Human resource

1. Introduction

Population geography is traditionally understood to encompass the spatial variation and analysis of the demographic components of change: migration, fertility, and mortality. One statement that can be made without reservation is that the boundary between population geography and demography, sociology, or economics can be difficult to locate. The consensus is that demographers focus more on fertility research, whereas population geographers tend to focus on migration. Indeed, fertility research and segregation studies, to name another topic, have tended to be dominated by other disciplines, although this is changing. With the advent of more sophisticated methods, in particular those related to geographical information systems (GIS) or remote sensing, and the ever-increasing availability of data at multiple spatial scales, the fundamental importance of space and geography has become more mainstream in population studies across the social sciences. This evolution is apparent in the development of a multidisciplinary subfield called spatial demography that is neither traditional population geography nor pure demography. As can be easily discerned by the citations included in this article, the core competency of population geographers is internal migration along with population distribution and composition. In the subfield of population and environment, geographers have made strong contributions in the area of land-use change, perhaps because of the geographers’ early comfort with remote sensing techniques.

2. Study Area

Objectives of Study
1) To study the population Growth and structure of the study area.
2) To study the distribution of various types of population densities.
3) Analyse the rural - urban, male - female (Sex ratio) and age composition of Indian population;
4) Establish the relationship between literacy rate and population growth rate;
5) To study the decadal growth of population of study region.
6) To study the point of view of human resources.

Hypothesis
1) Population distribution is greatly affected by the physiographic factors.
2) Population characteristics are the scenario of socio-economic setup of the study.
3) Population growth is controlled by physical and economic factors.

3. Methodology

The method of study in this article is mainly based on secondary resources with statistical data. It first collects information in various forms from internet, research articles and reference books. After reading all the elements, human resources are presented. It tries to show that population is resources. All of this information is theoretically and conceptual, this all information taken from various books, articles and internet. So this information is a hypothesis or an idea because all this information has been collected on this basis. This research uses a second type of study method that collects statistical data from 2001 to 2011 census of Gadag District. The population Density, Population Growth, Sex ratio and literacy is use as a human resource parameter.

Population characteristics
Population is one of the factors on which the resources and economic development of any nation depends. Geographical Distribution of Population, Increase and Decrease, Population Structure, and Characteristics Major factors affect resource development. In short, human as a resources being is an asset or not depends on its quality. [S.D Gulave, Use of Landsat ETM+ Data for Delineation of Vegetation Cover Area in AkoleThasil, International Research Journal of Engineering and Technology, Volume 7, (2)57-61,2020.]

There are many parameters of human resources, among which population growth, population density, literacy, sex ratio are considered important factors. [Shejul M. E et al., “A Geographical Study of Human Resources Development in Ahmednagar District, Maharashtra, India”] The economic development of any region depends on all these factors. [Giri Sanjay Pralhad, “Level of Development In Tribal Area-A Case Study of Akole Tehsil, Ahmednagar District, Maharashtra State, India”. MuktShabd Journal, Volume VIII, Issue VIII Pp 297-306. 2020.]

<table>
<thead>
<tr>
<th>S. No</th>
<th>Taluka</th>
<th>Population Growth Rate in %</th>
<th>Population Density per Sq. Km</th>
<th>Population literacy in %</th>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gadag</td>
<td>10.62</td>
<td>338</td>
<td>30.69</td>
<td>1005</td>
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<tr>
<td>2</td>
<td>Mundragi</td>
<td>13.40</td>
<td>149</td>
<td>49.68</td>
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<tr>
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<td>231</td>
<td>41.38</td>
<td>977</td>
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<tr>
<td>4</td>
<td>Ron</td>
<td>13.84</td>
<td>510</td>
<td>45.22</td>
<td>1030</td>
</tr>
<tr>
<td>5</td>
<td>Shirahatti</td>
<td>18.85</td>
<td>438</td>
<td>44.99</td>
<td>997</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9.54</td>
<td>219</td>
<td>75.12</td>
<td>1001</td>
</tr>
</tbody>
</table>

Population Growth

Human resources are divided into numerical and qualitative and Population growth is measured in quantity. Population growth is a factor on the human resources, which determines the birth rate and mortality rate in the area, as well as the medical facilities in the area. Population growth refers to the growth of human population in a particular area during a specific period of time. It can be measured either in terms of percentage or in absolute number. The growth may be positive or negative population growth may be due to natural increase or due to migration from outside in search of employment or to enjoy the facility and amenities available in a region.

For the present investigation, the growth rate is calculated by dividing the difference between the population of the decades by the population of the earlier decade and multiplied by 100 from 2001 to 2011. Thus

\[ Ar = \frac{P1 - P0}{P0} \times 100 \]

Where,

\( Ar \) is the decadal growth rate.
\( P0 \) is population of the earlier decade.
\( P1 \) is population of the end of the period.

Graph 1: Taluk Wise Population Growth Rate - 2001 - 2011, in Gadag District
From table number 1 and graph number 1, it is clear that every census period’s population has seen increasing or decline population growth. The graph clearly indicates that the population growth rate during 2001 to 2011 in Gadag District. The highest population growth rate is found in Shirahatti taluk i.e., 18.85% because of low migration and high health assets. Lowest growth rate found in Naragund taluk i.e., 8.57%. Ron 13.84%, Mundaragi 13.4% and Gadag taluk 10.62% showing the growth rate of population in the decade respectively.

Table 2: Rural and Urban Population Growth Rate (In Percentage)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Taluka</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gadag</td>
<td>10.67</td>
<td>10.57</td>
</tr>
<tr>
<td>2</td>
<td>Mundaragi</td>
<td>11.5</td>
<td>22.391</td>
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<tr>
<td>3</td>
<td>Naragund</td>
<td>7.01</td>
<td>11.46</td>
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<tr>
<td>4</td>
<td>Ron</td>
<td>12.86</td>
<td>16.92</td>
</tr>
<tr>
<td>5</td>
<td>Shirahatti</td>
<td>19.13</td>
<td>18.64</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8.33</td>
<td>10.85</td>
</tr>
</tbody>
</table>

Table No.2 clearly shows talukawise rural and urban growth rate of Gadag district from 2001 to 2011. Overall growth rate of rural population in Gadag district is 8.33% followed by Urban is 10.85%. In rural population the highest growth rate found in Shirahatti 19.33%, and lowest growth rate is found in Naragund i.e., 7.01. Low migration and good health assets are the main cause for highest growth rate found in Shirahatti.

Graph 2: Rural and Urban Population Growth Rate

**Population Density**

Population density is measured in quantity because human resource is measured in qualitative and quantitative. Population density affects regional inequality. Population density shows the relationship between land and population, as well as how much pressure is exerted on a natural resource. Population density is expressed by how many people live in per square kilometer. The arithmetic density called with the help of following formula.

\[
\text{Density} = \frac{\text{Total Population}}{\text{Total Geographical Area}} \times 100
\]

For the better understanding of variation in arithmetic density within district the taluka wise population densities are computed for the census year 2001 to 2011. It indicates that the population growth rate is constantly increasing each census periods. The highest population density was shown in Ron 510 per sq. km the lowest population density is shown in Mundaragi i.e., 149. Naragund shows 231 per sq. km, Gadag 338 per sq. km and Shirahatti 438 per sq. km density of population respectively. The total overall population density of Gadag district is 219 per sq. km. The growth rate of population density in Gadag district is 10.9% for the decadal year 2001 to 2011.
Population Literacy
Literacy is considered to be one of the most important factors in determining the quality of a human being. Human resources are divided into numerical and qualitative. Literacy is measured in qualitative factors. Because literacy is the development of skill, knowledge, read and write in human beings. The socio-economic status of women depends on literacy. Graph No.4 shows the literacy rate of the population in Gadag District. The highest literacy rate is found in Mundaragi taluk i.e., 49.68% and lowest literacy rate is found in Gadag taluk. Gadag taluk has lot of educational institutions but taluk showing low literacy rate because of migration. In 2001, the total average of literacy rate in Gadag district is 66.11% it increased to 75.12% in 2011 respectively because of various popular schemes introduced by the government to improve the literacy rate in the state i.e., free bicycle distribution, mid-day meals etc.

Male and Female Population literacy
Graph No.5 shows the male - female literacy rate and also the literacy rate is expressed in percentages. It is clear from this group that the literacy rate in each census is constantly increasing. This means that the educational facilities in this study area are constantly increasing and it benefits the people to increase their quality. It is clear from this that females are less educated than male. But the literacy rate of female above the 2001 census year seems to be lower than the previous census year (1991 census year). However, the most important reason why women are less literate than men is because of the depression among the people. It clearly shows that the highest male literacy rate is in Mundaragi taluk 57.17% and the highest literacy rate of female is also in Mundaragi taluk. The lowest literacy rate is shown in Gadag taluk 35.21% male and 26.13% female. The overall literacy rate of Gadag district is counts that male literacy rate is 84.66% and female literacy is 65.44% respectively according to 2011 census report.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Taluka</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gadag</td>
<td>35.21</td>
<td>26.13</td>
</tr>
<tr>
<td>2</td>
<td>Mundaragi</td>
<td>57.17</td>
<td>42.02</td>
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<td>3</td>
<td>Naragund</td>
<td>47.67</td>
<td>34.84</td>
</tr>
<tr>
<td>4</td>
<td>Ron</td>
<td>53.17</td>
<td>37.22</td>
</tr>
<tr>
<td>5</td>
<td>Shirahatti</td>
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<td>38.18</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>84.66</td>
<td>65.44</td>
</tr>
</tbody>
</table>
Sex Ratio
Sex ratio is factors that affect socio-economic status. Sex ratio is considered to be a component of human resource. As well as Sex ratios are a qualitative factor, it also understands human quality. Birth rate and mortality rate are two important factors affecting on sex ratio as well as migration. Graph No.6 shows the difference between sex ratio from 2001 to 2011 census periods. From the graph it is clear that the amount of sex is decreasing with each census periods.

The highest sex ratio was found in Ron 1030 and lowest sex ratio is found in Naragund 977 respectively in the census year 2011. Gadag has 1005, Shirahatti 997 and Mundaragi has 991 sex ratio respectively. This means that boys are more preferred than girls. We clearly conclude that sex ratio depends on Migration, employment, birth rate, death rate and medical facilities.

4. Conclusion
Literacy, sex ratio, population density, population growth rate, population engaged in actual occupation structure etc. are main factors includes its nature. In short, there are two types of human resources, one quantitative and the other qualitative. Numerical resource wealth population distribution, population growth, population density, these factors are included. At the same time, the qualitative population includes the literacy, knowledge, skill, Age group etc. Also these human resources are affected by various factors such as natural, cultural, socio-economic and political. These factors have a positive or negative effect on human resources.

References


