Abstract

The study of population is very essential for regional planning of a country and concerned states. Population studies are carried out by census method which is very inclusive for all aspects of population. The population studies are not only related to counting of numbers in related male and female. The importance and application of population study lies between the relationship of man and environment. It express the way of life of man by using natural resources those are available in surrounding environment of his residence. Therefore, author has made an effort to study the population composition at micro level in the village of Vekhandwadi.

Key Words: Population, Composition, Occupation, Age and Dependency ratio.

1. Introduction

There are varieties in way of life of man associated with the availability of resources because natural resources are not evenly distributed on the earth surface. The use of resources develops the civilization and civilization accelerates the new approaches to utilization of natural resources. The human environment pattern is governed by intelligence of man, invention of tools and techniques, adaptation of technologies and methodology by society. The land, forest, sea, water, etc. are used in the variety, chiefly because of the wide variation of human numbers, types and stage of development of society.

Among the various resources human intelligence and skills are prime resources in the civilization of human being. Natural resources can’t express it’s utility value itself. It is depend upon the stage of development of human being. Population studies are concerned with number of total population, male and female proportion, age structure, marital status, economic structure, religious and caste composition, educational attributes etc. of the given region. A. Ahamad (2010), states that among various elements of population composition, sex composition, age characteristics, religious understanding of population. The study population is neglected for long period of times by prevailing disciplines but American geographer Glenn T. Trewartha attempted to draw focus of scholars on it. Population studies focused the attention on the significance of the role of man in determining the character of areas. T. Trewartha (1969) stressed that it was concerned with understanding the regional differences in the earths’ covering people. Population the most dynamic element contributes the understanding of the process of spatial organization.

The significance of population lies in areal differentiation and spatial organization highlighted by many scholars while studying man environment relationship. The present research work attempted to study the age composition, sex composition, educational and occupational composition of Vekhandwadi village.

2. Objective:

The main objective of present work is to analyze the age, sex and occupational composition of population of Vekahandwadi Village of Panhala taluka in Kolhapur district.

3. Location of Study Village

The study village is located in Panhala taluka of Kolhapur district MH. The western part of Kolhapur district has occupied by ridges and hills of Western Ghat. Panhala taluka lies in these hilly region. Vekhandwadi village also located at the northern bottom of Masai Plateau, at the 518 m height, 16° 51’ 26” north latitude and 74° 43’ 37” east longitude.
4. Data Collection And Methodology

The present research work is based on primary and secondary sources of data. The primary data, as the main source, has been generated through field work carried out in January 2019. The data for various purposes have been collected at family level. Besides this, an interview technique has been used to extract necessary data from family members.

The secondary sources of data are also collected from district census, reports, statistical abstracts, reference books etc. The present research work is primarily an empirical study in which the family is micro unit of study. The dependency and sex ratio have calculated with following formulas.

\[
\text{Sex Ratio} = \frac{\text{No. of Females}}{\text{No. of Males}} \times 1000
\]

The processed data have presented with suitable tables, graphs and diagrams.

5. Analysis

i. Age composition:

Age composition is an important variable of population study which provides data for many types of planning such as planning of community institutions and services. It is useful for planning and management of potential school population, potential voting population, potential manpower, future population projections. The estimates of required teachers, doctors, technical hands, administrative servants, armed personnel, protection force etc. is also depend upon the accurate data of age composition. Generally, age pyramids and age groups are dominant means for the analysis of age composition.

- Age Groups

Age group is very important method of population analysis with regional significance. The age group permits the regional comparisons with the help of choropleth map. Generally, population is classified into three broad age groups; the young, the adult and the old. The most commonly the extension of age groups is 0 to 14, 15 to 59 and above 60 years of the young, the adult and the old age group respectively. The social and economic implications of these three age groups and geographical variations in their distribution are worthy of serious considerations (Clark, 1972).

Table no. 1 Age groups of Vekhandwadi Village

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Young</td>
<td>66</td>
<td>62</td>
<td>128</td>
<td>21.74</td>
</tr>
<tr>
<td>The Adult</td>
<td>200</td>
<td>182</td>
<td>382</td>
<td>64.85</td>
</tr>
<tr>
<td>The Old</td>
<td>36</td>
<td>43</td>
<td>79</td>
<td>13.41</td>
</tr>
<tr>
<td>Total</td>
<td>302</td>
<td>287</td>
<td>589</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Study, (January, 2019)

Table no. 1 indicates that the proportion of young population is 21.74 percent. The share of young population in total population is depends upon the stage of demographic transition. The young age group’s proportion is high in those countries which passing through the first and second stage of demographic transition. Generally, these countries are known as under-developed countries. The share of this age group as a whole world is 35.6 percent. It is less than 25 in European countries and nearly 50 percent in Africa. The proportion of young age group of study village shows developed condition as far as demographic transition is concerned. It expresses the awareness about population growth and female status of study village. The data of young age group is essential for the planning of education facilities at village level. It also creates awareness at family level planning regarding supply of foods, clothing and shelter.

The proportion of adult age group is 64.85 in the study village. The population of this age group is very important because it supports to young and old age groups. It supplies manpower to various social, economic and cultural activities. Trewartha (1969), states the adult age group is biologically the most reproductive, economically the most productive and demographically the most mobile. The developed countries have marginally high (65 %) proportion of adult age group as compare to less developed (56 %) countries. The study village shows the condition of more developed situation of adult age group of demographic transition.

The old age groups’ proportion is 13.12 percent of study village which is dependent population. The proportion of this age group is high
as the completion of demographic transition theory. The number of females in this old age group is more than the males because mortality rate controls the males’ proportion. The proportion of old age group is low in the less developed countries and high in more developed countries. The less proportion of study village reveals that it consists in less developed region.

Graph No. 1
Joint Bar Graph
(Population according to age groups of five years interval)

Source: Field Study, (January, 2019)

Graph no. 1 shows the age distribution with five years age groups including males and females. The age group of 0 to 5 years shows the expected equality of males and females ratio. It reflects the gender quality among society. Next three age groups mean from the age 6 to 20 reveals the less proportion of females than the males. It shows the females deficiency in the society which the impacts of elimination of female infancy as result gender test of pregnancies. Above 50 years age groups reveal that the high proportion of females which express the high life expectancy of females.

ii. Sex Ratio:

The sex ratio is one of the important composition of population structure. The balance of male and female ratio affects social and economic relationship within a community. The two sexes are more complementary to each other for economic and social stability of region. Franklin (1959), rightly observes that sex ratio was an index of economy prevailing in an area and was useful tool for regional analysis. Trewartha (1953), rightly remarked that the proportion of the two sexes is fundamental to the geographical analysis of an area. There are some countries where females children below the age of five years may not be reported due to prevailing high mortality rate among them Shyrock, (1976). There are three types of sex ratio. In India, sex ratio is calculated in terms of number of females per thousand males. The sex ratio of a population at the time of enumeration is known as tertiary sex ratio. The crude tertiary sex ratio of study village is shown in the table no. 2.

Table no. 2 Sex Ratio of Vekhandwadi Village

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Females</th>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>66</td>
<td>62</td>
<td>939</td>
</tr>
<tr>
<td>15-59</td>
<td>200</td>
<td>182</td>
<td>1010</td>
</tr>
<tr>
<td>60+</td>
<td>36</td>
<td>43</td>
<td>1194</td>
</tr>
<tr>
<td>Total</td>
<td>302</td>
<td>287</td>
<td>950</td>
</tr>
</tbody>
</table>

Source: Field Study, (January, 2019)

Table no. 2 shows that the variations sex ratio in different age groups. The sex ratio of adult age group is very low (910) as compare to other age groups as well as Kolhapur districts rural sex ratio (962). The total sex ratio (950) is also below the district’s sex ratio. The sex ratio of old age group is high (1194) than the natural equality. A. Ahamad (2010), except in some less developed countries, this group includes largely the females.

iii) Occupational Composition

The analysis of occupation composition expresses the classification of population according to the economic activities. Along with economic activities it also explains the demographic and cultural attributes of region which help in the social and economic development of concern region. Occupational composition makes distinction between total population and available manpower. The dependency ratio is calculated with economically active population and economically non-active population. The census data is helpful for such type of study but all the countries not conduct their censuses collect the labour force data (A. Ahamad). The economically active population is that which is actually engaged in the population of goods and services. Economically, non-active population is that which is engaged in household duties to support their family members. The occupational composition of
Vekhandwadi village studies at family level which is shown following table.

**Table no. 3 Occupational Structure**

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Family no.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Government Service</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>Private Service</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>Self Employment</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>Daily Wages</td>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Filed Study, (January, 2019).

Table no 3 reveals that agriculture occupation is major sector of economic activities. The highest (82%) families have been engaged in agriculture occupation and second largest share (7%) is engaged in daily wages occupation which is again related to agricultural activities. The study village is located in hilly region so there is less opportunities for self employment. Still 3% families are depend upon and self- employment and 3% upon private jobs. The well educated people have got government services which comprise 4% total families.

6. **Conclusion:**

The population composition of Vekhandwadi village has been studied with age, sex and occupation composition. The age of study village indicates the 35.5 percent population of young and old age group is depends upon the 64.85 percent population of adult age group. The dependency ratio of study village is 54.7 percent which is more than the India’s dependency ratio, 52.2 of 2015. There is equal sex ratio of below 5 years age group. It expresses the effect of save baby girl campaign and gender equality awareness among people of study village. The low proportion of females between 6 to 20 years age groups reveals the impact of gender tests of pregnancies and marriage problems of young males in the society. The high proportion of females above 45 years expect 56 to 60 years age, shows biologically strangeness and high life expectancy of females. The total female ratio of study village is 950 which slightly more than India’s sex ratio (943) of 2011 but it is less than the Kolhapur districts sex ratio (962). It is note worthy that above 60 years, females proportion is 1194 per 1000 males. As far as occupation composition is concern the high families (82 %) have been engaged in agriculture occupation and proportion of other occupations practiced is very less.

**References:**