

CHAPTER No.IV

“POPULATION CHARACTERISTICS”

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POPULATION.**

“POPULATION CHARACTERISTICS”

4.0 INTRODUCTION

Population of a country is as important as any other natural resources. Growth of population and economic progress are closely related. This is because economic progress of a country is related to natural resources and the population that exploits these resources. If enough population is not available then all the natural resources will not be fully exploited and production will remain low to that extent. Population therefore is a major factor contributing towards the production studies related to population are given considerable importance in Human Geography.

Similar to the distribution of any other natural resource, the distribution of population on the surface of the earth is uneven. Distribution of population is a geographical phenomenon. The studies related to distribution tell us how many people lives in which area, which areas have concentration of population and which areas have very few people (Savant and Athavale, 1994)

On the earth surface human being is the most important factor, their characteristics and distribution, also human being are modifying his environment but total environmental situation is depend upon the quality of population as well as quantity of population. The physical aspects are modified by the man and creates the new environment, which we call cultural environment while studying the evolution of various cultural landscapes in the study region. We have to know the people, density and characteristics, then the pattern of evolution of cultural landscapes become clearer.

4.1 GROWTH OF POPULATION

The population of Khandala taluka has changed in each decade. In every decade the number of people are found increased. There are various factors responsible for the growth of population, in which development of agricultural, industrialization, development of transportation and availability of medical facilities are the major aspects contributed in the growth of population in study region.

The population growth is calculated on the basis of following formula,

$$R = \frac{P1 - P0}{P0} \times 100$$

Where

R= population growth.

P1= population of last year.

P0= population of first year.

100= constant.

The trend of population growth of study area indicates gradual increase in population, while the decadal growth rate gives different picture. The growth rate of population in Khandala taluka shows continuous increase since 1961 to 1991. Which is tremendous increase in decade 1991, the rate of population growth is 22.44 percent. In decade 1971 and 1981 it is nearly 13.87 percent and 14.80 percent respectively. The table No.IV-I shows the population growth of Khandala taluka.

Table No. IV-I.

Khandala Taluka

Population Growth (1969-91)

Sr. No	Total Population	Growth of population (In percentage)
1	1961	-
2	1971	13.87
3	1981	14.80
4	1991	22.44
5	2001	18.33

4.2 POPULATION PROJECTION

Population projection is an estimate of population after a specific period of time taking into consideration. The present population of the region, its age, sex composition and changes in the past. For planning purposes reliable estimates regarding population, its rate of growth, age composition and spatial distribution are very essential. Similarly, for the same purpose it is essential to know what will be food requirement of the country after a specific period, what will be number of school going children, what will be number of job-seekers, as also old people and medical establishments required to take care of them. Projection is also necessary to know the dynamic nature of population (Savant and Athavale, 1994.)

The population projection have been calculated by using Gibbs following formula,
first formula,

$$F = P1 + (Ri \times y)$$

Were

F = future population

P1 = population of first time.

Ri = Rate of growth.

Y = Time interval.

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**DECADE -WISE GROWTH RATE PATTERN OF
RURAL POPULATION (1971-2001)**

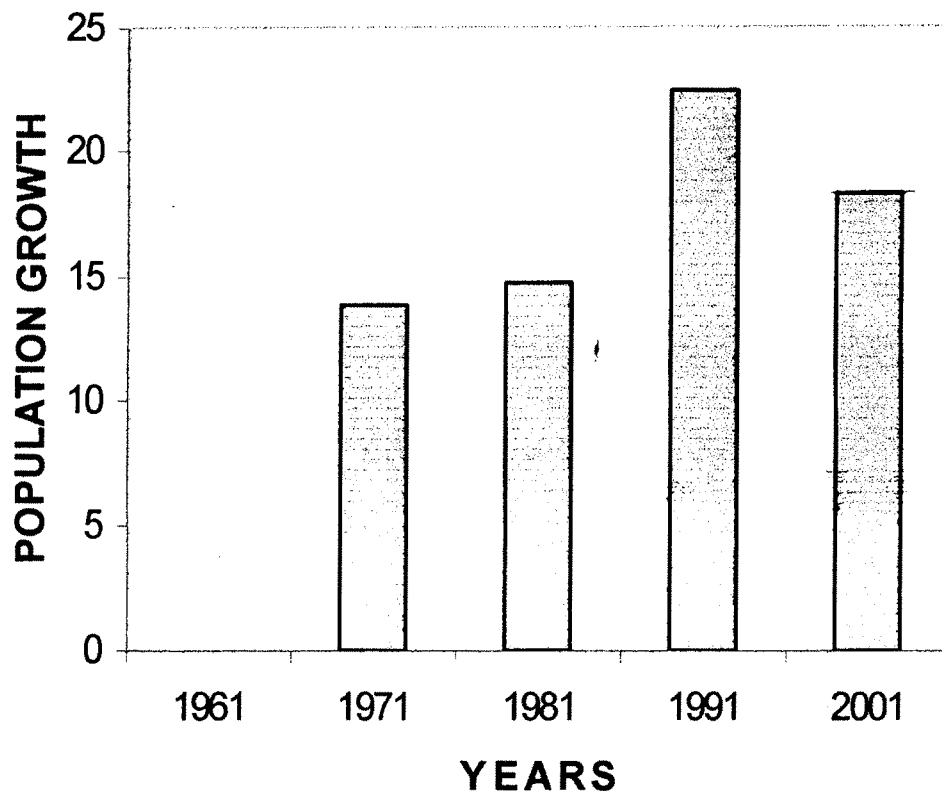


Fig.no.4.1

Second Formula

$$R_i = \frac{P_2 - P_1}{Y}$$

Were.

R_i = Rate of growth in population.

P_2 = Second year population.

P_1 = First year population.

Y = Time interval.

Considering the above formula, the populations of the Khandala taluka have been estimated. The population of 1991 census figures taking as a base while estimating the population it was assumed that for 2001 population of Khandala taluka will be 1,19,636 and out of this population male population will be about 61106 and female population will be 58530.

4. 3 THE DENSITY OF POPULATION

The physical and cultural factors are influenced on the distribution of population of Khandala taluka. In physical factors, physiography, rainfall and soil are the important and in cultural aspects agriculture, manufacturing and availability of water etc are significant elements. The types of density are significant in any study related to distribution of population. The population of Khandala taluka is a major aspect of study. According to the 1991 census population of the study region was 101105 and density of population was 192.03 persons per sq. km the density of population is unevenly distributed throughout the region.

The density of population indicates the man-land ratio. In other words, relating to the number of people to the space occupied by them, is one of the most intriguing and most hazardous correlation's employed by geographers. The distribution of population in terms of number, degree of concentration, size and spacing of settlements are the most fundamental aspects of the settlement Geography. It includes the analysis of relative concentration of man, who acts as a pivotal

force in the making of the geographical personality of an area and expresses the synthesis of all geographic phenomena operating in an area. It also provides a base for the analysis of other attributes of population.

Here, an attempt has been made to study the population density of the Khandala taluka. The population density of the study region has been calculated village wise per sq. km and categorized into four groups as follows.

Here an attempt has been made to study the population distribution of 1981 and 1991. The village wise distributions of population in Khandala taluka have classified into four categories as follows:

Village-wise Population distribution (1981)

1. Very low density of population

Very low density of population in Khandala taluka is found mostly towards the western, central and south eastern area, at Wing, Shindewadi, Mirje, Kanhavadi, Atit, Karnawadi, Ghadagewadi, limbachiwadi, Bholi, Kesurdi, Ajnuj, Ambarwadi, Ahire, Dhawadwadi, Bori, Koparde and Padali etc. where density of population is less than 100 persons per sq. km. Less agricultural land mountains area are responsible for the distribution of population.

2. Low density of population

The density of population is 100 to 150 persons per sq. km. found at Guthalwadi, Rajewadi, Asawali, Kanheri, Kavathe, Tondal, Shivajinagar, Morve, Khed Bk., Sukhed and Nimbodi etc.

3. Medium Density of population

Medium density of population is found in mostly fertile land, where the villages are Javale, Shirwal, Khandala, Pargaon, Watar Bk. etc. where population density is 150 to 200 persons per sq. Km.

4. High Density of population

The population density above 200 persons per sq. km. is found at Lohom, Palashi, Blvda, Andori and Lonand etc, where fertile land and irrigation system responsible for the high density of population.

Village-Wise Population Distribution (1991)

1) Very low Density (less than 100 persons per sq. km.)

The density of population less than 100 persons per sq. km. has been found in the southern portion of study region at Atit, Kesurdi, Ajnuj, Ambarwadi, Harali, Nimbodi and Koparde etc. The hilly region and less fertile soil affects on the distribution of population.

2) Low Density of the population (100 to 150)

Low density of the population is found in the study region in the form of scattered manner at Ghatalwadi, Miraje, Kanhawadi, Javale, Ghadgewadi, Asawadi, Shivajinagar, Padali, Mhavashi, Ahire and Khed Bk. etc. these villages have density 100 to 150 persons per sq.km. the less fertile soil and rigged topography is responsible for the distribution of population.

3) Medium Density of the population (150 to 200 persons per sq. km.)

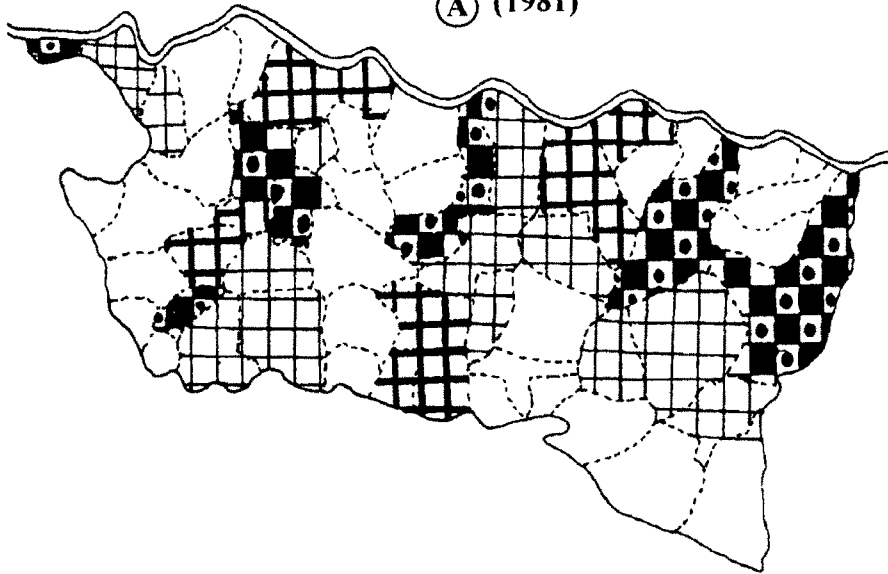
The medium density of the population have found at Javle, Vadagaon, Naigaon, Moh Tarf Shirwal, Bavada, Loni, Bhadavade, Shivaginagar, Morve and Nimbodi etc. this villages are located at the central part of the study region.

4) High Density of Population (Above 200 persons per sq. km.)

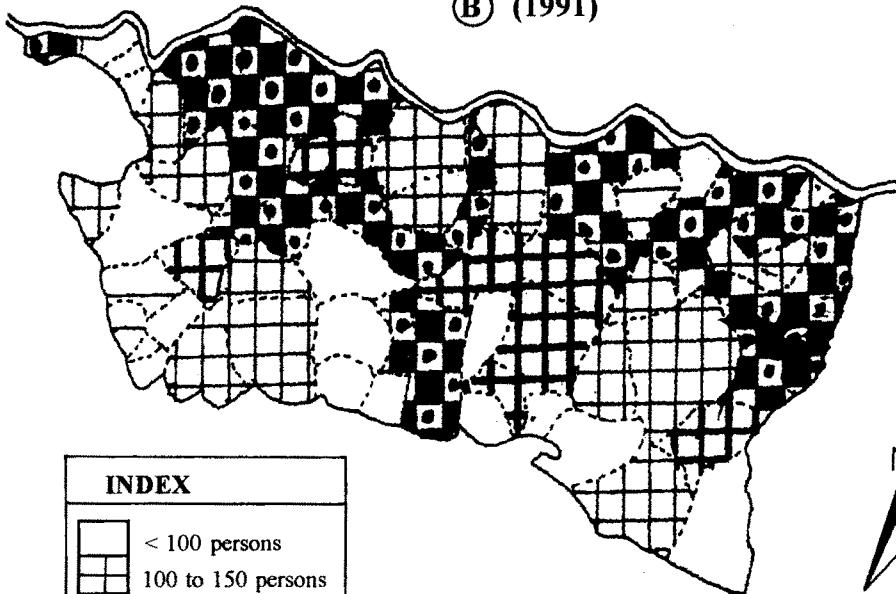
The population density above 200 persons per sq. km. is found along the right bank of the Nira river, at Bhatgar,, Wing, Shindewadi, Shirwal, Piscalwadi, Paragon, Khandala, Watar Bk,

KHANDALA TALUKA
VILLAGEWISE POPULATION DENSITY

(A) (1981)



(B) (1991)



INDEX	
	< 100 persons
	100 to 150 persons
	150 to 200 persons
	> 200 persons

km2 0 2 4 6km



fig.4.2 A & B

Andori, Bhade, Lonand, Morve, Padegaon and Pimpare Bk. etc. where deep fertile soil, irrigation facilities, transportation are well developed ,therefore population density is high.

a) Physiological Density

Physiological density is the ratio man and gross cropped area. Here an attempt has been made to determine the physiological distribution of population in the study region. The Khandala taluka has classified into four categories of population density. First category is less than 100 persons per sq. km. also found southern and central land of the study region. In the second category of physiological density is 100 to 200 persons per sq. km, such population density occupied more area and observed central region. Third type of physiological population density is 200 to 300 persons per sq. km. It is found nothern and central land of the study region. The fourth category of physiological density is above 300 persons per sq. km .,which is observed along the Nira river. The fig. no. 4.2 shows the physiological density per. Sq. km. of the Khandala taluka.

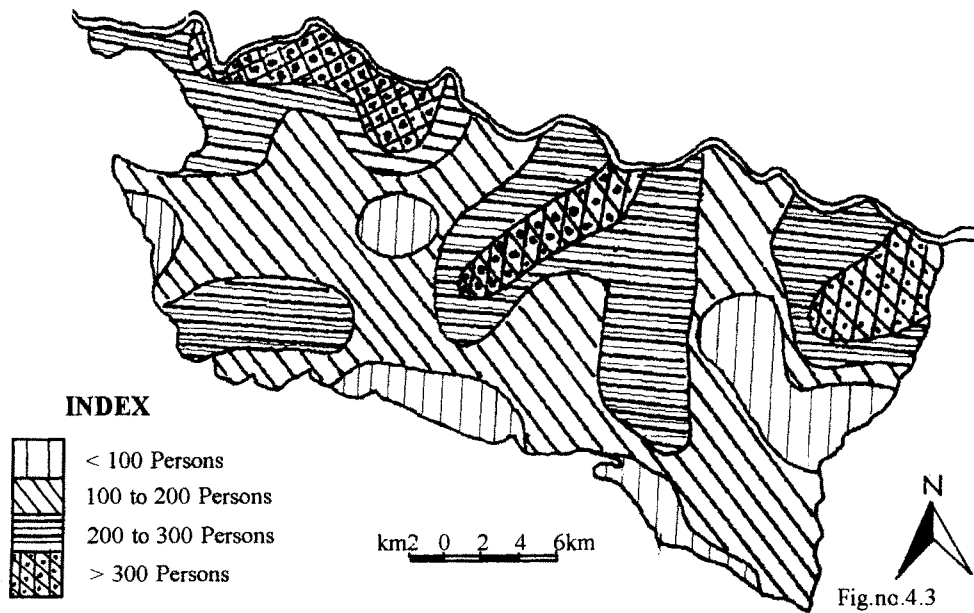
b) Agricultural density

The agricultural density is the ratio of farm population, and gross cropped area .In the study region agricultural density is differ form place to place. The agricultural density less than 60 persons per sq. km. is found in southern and north western region. The west to east extending belt of central area occupied by the density between 60 to 75 persons per sq. km. Toward north of the same belt agricultural density is observed 75 to 90 persons per sq. km. The agricultural density above 90 persons per sq. km. is found nothern part of the study area. The fig.no.4.3 shows agricultural density per sq. km of Khandala taluka.

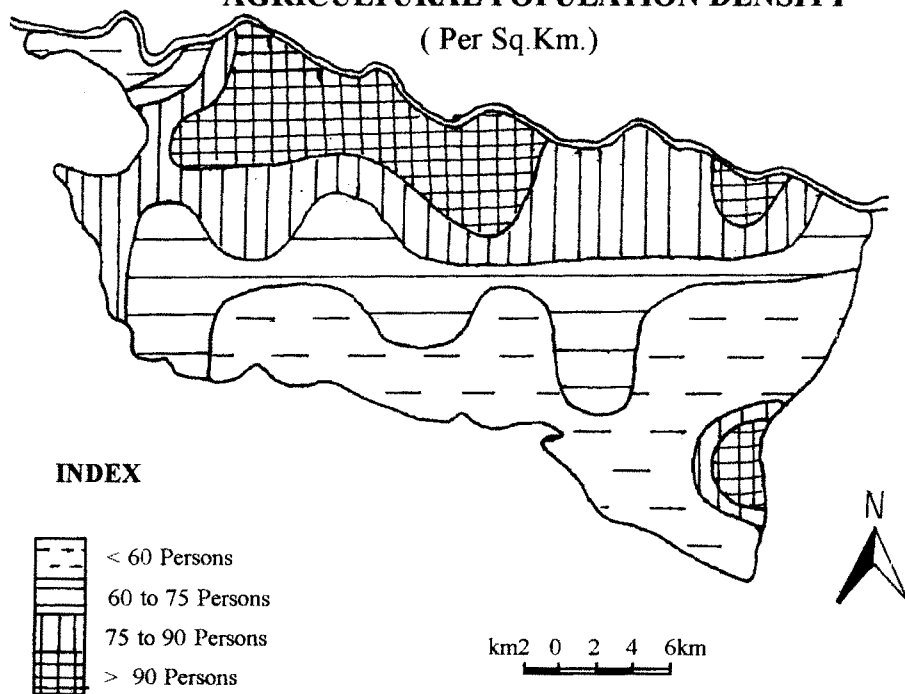
c) Nutritional Density

The nutritional density is the ratio of man and land under crops. The high nutritional density is found nothern

**KHANDALA TALUKA
PHYSIOLOGICAL POPULATION DENSITY (1991)
PER Sq. Km.**



**KHANDALA TALUKA
AGRICULTURAL POPULATION DENSITY
(Per Sq.Km.)**



side, which is above 401 persons per sq. km. Below this density zone of population is 301 to 400 persons per sq. km. is observed from west to east direction and flat at central area. The agricultural density is 201 to 300 persons per sq. km. is observed in the west and east part of the Khandala taluka, and low nutritional density is found in the southern and western portion of the study region, which density is less than 200 persons per sq. km. The clear picture of nutritional density is shown in figure no 4.5.

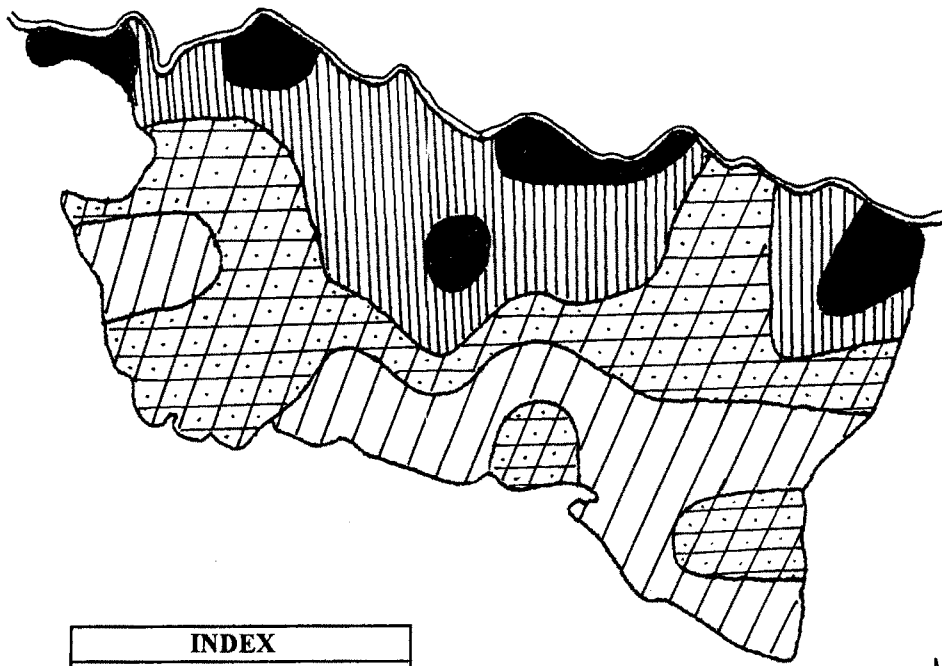
4.4 THE SEX STRUCTURE





Almost every population study deals cursorily with sex structure. The sex ratio is used most frequently in demographic variable for studying the 'sex composition' of a given population. In India, it is generally expressed as the ratio of females per thousand males. In India, there is a tendency for males in the productive age groups to migrate to urban areas resulting in lower sex ratio. Sex ratio assumes importance in demographic analysis on which depends the rate of marriage and hence the future births rates and consequently growth of population.

Although the numbers of the two sexes are not widely different, their disparity interest is of geographers. Because the nature of the sex ratio affects on the different aspects of population it is important for the following reasons.

- I) It influences the form of the life.
- II) It affects marriage, birth rate, death rate and population growth.
- III) It affects the religious character of a region.
- IV) It is essential for the planning regarding educational and medical services and housing etc.
- V) It affects the labour supply.
- VI) Some times due to adverse sex ratio the society is likely to loose the moral.

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NUTRITIONAL POPULATION DENSITY (1991)
PER Sq. Km.



INDEX	
	<200 PERSONS
	201 TO 300 PERSONS
	301 TO 400 PERSONS
	>401 PERSONS

km2 0 2 4 6km



Fig.no.4.5

Thus, the study of sex composition reveals several things and there fore this point has been considered in the study of sex ratio of Khandala taluka.

The sex ratio of the total population is 999 females per 1000 males according to the 1991 census. In the decade 1971 sex ratio was 1044 females per 1000 males and in decade 1981, it was 1062 females per 1000 males. Therefore in these two decades the sex ratio is high but in decade 1991 it has found decreased as compare to former two decades, The table No. IV-II shows clear picture of sex ratio. of Khandala taluka.

Tabk No. IV-II

Khandala Taluka

Sex Ratio (1971-1991)

Sr.No.	Year	Male	Female	Sex ratio
1	1971	35198	36731	1044
2	1981	40048	42526	1062
3	1991	50577	50528	999

4.5 LITERACY STRUCTURE

One of the important indicator of social development is the level of literacy and educational attainment, which is considered to be an important factor in the process of total development. Literacy is an important variable affecting demographic structure relating marriage, fertility, mortality, migration as well as the labour force.

The most simplest measure used to assess the level of literacy in a population is the crude literacy rate. This may be expressed as follow

$$\text{Crude Literacy Rate} = \frac{L}{P} \times 100$$

Were,

L = Literate population

P = Total population

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SEX STRUCTURE (1971-91)

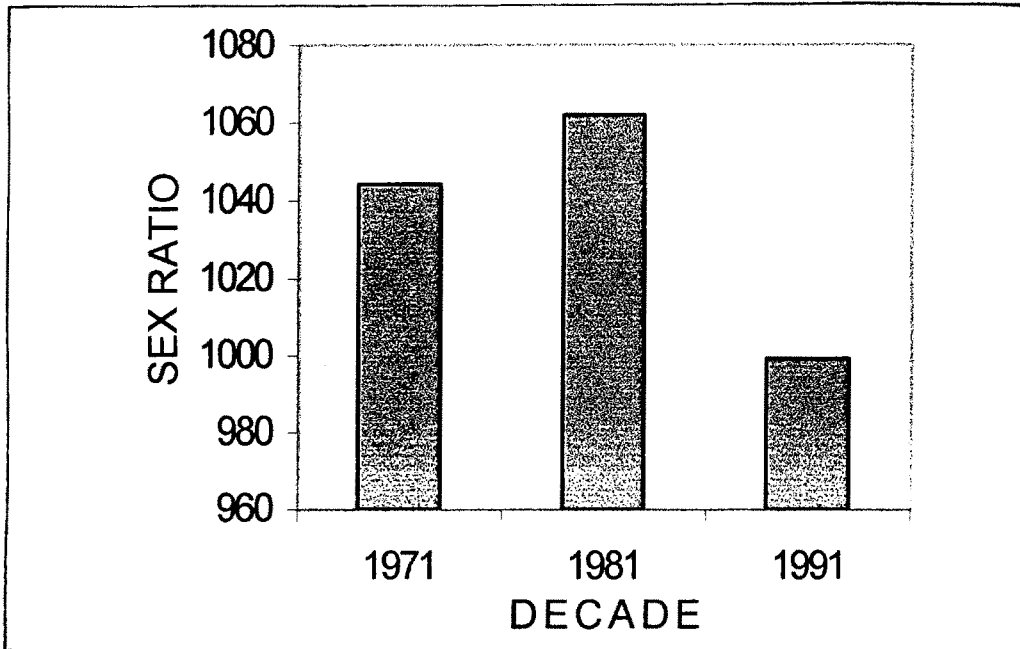


Fig.no.4.6

KHANDALA TALUKA
LITERACY STRUCTURE (1971-91)

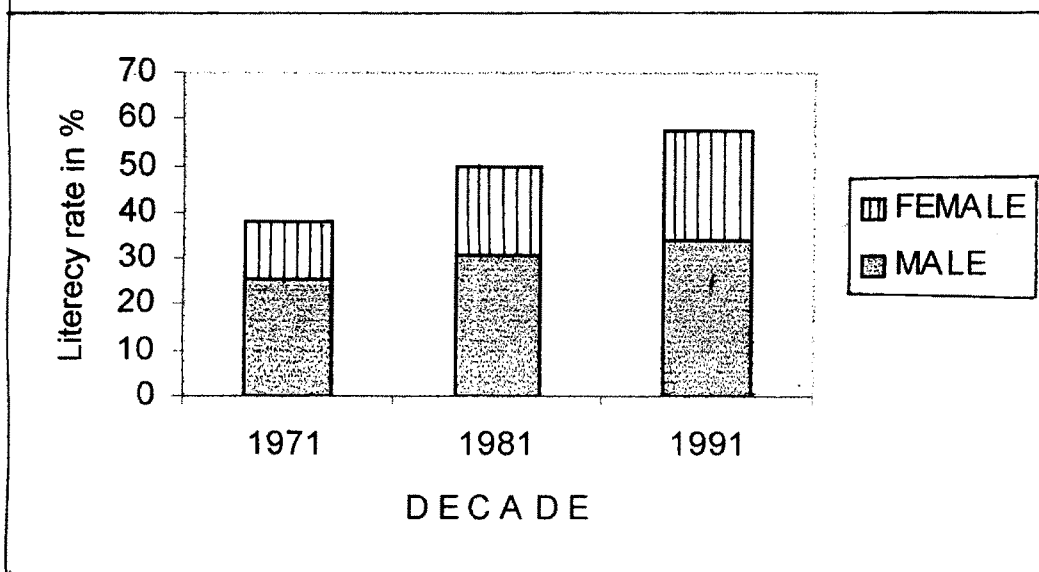


Fig.no.4.7

It is observed that in general, literacy rate is ever increasing in each decade. According to 1971 census, nearly 38.11 percent of the total population is literate, out of which 25.35 percent male population and 12.79 percent female population. In the decade 1981, literacy figures shows that the literacy rate is increased. It is found nearly 49.90 percent in the total population, while 30.48 percent in male population. In the decade 1991 about 57.71 percent population of the total population was literate, out of which 34.13 percent and 23.58 percent male and female population respectively. The table no. IV-III shows the literacy structure of Khandala taluka.

Table No. IV-III

Khandala Taluka

Literacy Structure (1971-1991)

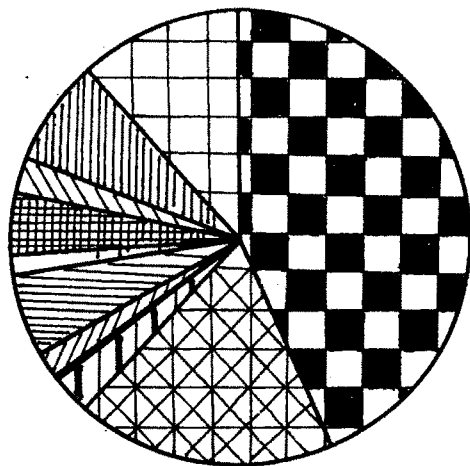
Sr. No.	Literate pop.	Literacy Rate	Literate Male pop.	Literacy ratio	Literate Female pop.	Literacy Ratio.
1	1971	38.11	18212	25.32	9203	12.79
2	1981	49.90	25165	30.48	16034	19.42
3	1991	57.71	34510	34.13	23843	23.58

4.6 THE OCCUPATIONAL STRUCTURE

As 'occupation is the name of the function which a person performs by engaging himself in some activity.' (Markandey Kalpana, 1990). It indicates the earner's nature of work. Occupation is defined as the name of the function which a person performs by engaging himself in that particular branch of gainful economic activity which is his industry. (Mukherjee and Singh, 1954).

Utilization of man as a resource or an estimation of working population is made convenient by the study of occupational structure in a region. Occupational

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OCCUPATIONAL STRUCTURE
 (1991)



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










-  Cultivators
-  Agricultural Labourers
-  Fishing, Hunting, Gathering etc.
-  Mining and other
-  Manufacturing services and Household industries
-  Other than Household Industry
-  Construction
-  Trade and commerce
-  Transport and storage
-  Other Workers
-  Marginal Workers

Fig.no.2.8

structure refers to the number of persons engaged in different activities, such as primary, secondary and tertiary.

Occupational structure is perhaps the most important social characteristics influencing man's life. It indicates the degree of employment or unemployment and exerts its influence as one of the major determinants of several social, economic and demographic characteristics of population. The occupation often reflects a variety of cultural traits of the workers especially in a country like India, where cultural moorings have strong bearing on what a person is to do for earning livelihood. Therefore, its essential to analyse the working force and its livelihood pattern for obtaining and under standing of diverse demographic and socio-economic relationship and for making an assessment of manpower of the region under study.

The attempt has been make to the study occupational structure of the study region. It is observed that out of the total population 45.40 percent is found working population. Out of the total working population 25.24 percent is male population and nearly 20.16 percent is female population . Out of the total working population 62.03 percent population is engaged in agriculture and related activities. Nearly 11.47 percent working population found in the marginal workers, 07.30 percent population is classified as other workers, which includes primary, secondary and tertiary activities. The tables, no IV-IV and fisure 4.7 give clear picture about the occupation structure of study region.

Table No. IV-IV

Khandala Taluka

Occupational structure (1991)

Sr. No	Occupation	Male	Female	Total	%of Total
1	Cultivators.	11509	8502	20011	43.59
2	Agricultural Laborers.	3014	5450	8464	18.44
3	Fishing, Hunting, Gathering etc.	1029	198	1227	2.67
4	Mining and others.	87	46	133	0.29
5	Manufacturing services and Household industries.	680	251	931	2.03
6	Other than household industry.	2448	254	2702	5.89
7	Construction.	487	69	556	1.21
8	Trade and Commerce.	1850	210	2060	4.49
9	Transport and storage.	1189	12	1201	2.62
10	Other workers.	2786	569	3355	7.30
11	Marginal workers.	437	4829	5266	11.47
Total		25516	20390	45906	100.00

4.7 SOCIAL ANALYSIS OF SCHEDULED CASTE AND SCHEDULED TRIBE POPULATION

The analysis of scheduled caste and scheduled tribe population has been attempted for 1971 to 1991 census data. It is observed that high percentage of scheduled caste population is found in 1991, it is 08.29 percent out of the total population and out of scheduled caste population male population is less than female population, which is 49.88 percent and 50.12 percent respectively. In the decade 1981, scheduled caste population is found 05.41 percent out of the total

population of the Khandala taluka, male and female population is 49.76 percent and 50.24 percent respectively and in the decade 1971, nearly 04.59 percent population is scheduled caste, male population is 50.56 percent which is more than female population, it is about 49.44 percent out of the scheduled caste.

Scheduled tribe population is found more in 1981, it is 0.79 percent out of the total population of the Khandala tahasil. In same year male population and female population is 51.10 percent and 48.90 percent respectively. In the decade 1991 the scheduled tribe population is decreased as compare to 1981, it is about 0.77 percent out of which 51.41 percent and 48.59 percent population is male and female respectively but in 1971 same population is found very less, which is only 0.10 percent out of the total population. In this year female population is 55.56 percent and male population is 44.44 percent out of the total scheduled tribe population. The table no.IV-V gives clear idea about the scheduled caste and scheduled tribe population.

I) Distribution of Scheduled Caste Population (1991)

The spatial distribution of scheduled caste population is uneven. The northern and southern area observed high scheduled caste population western, southern area are observed less density of similar caste population. The village wise distribution of scheduled caste population is observed in four groups are as follows.

1) Very Low Scheduled Caste Population Density

Very low scheduled caste population density 10 persons per sq. km. is found at Guthalwadi, Shindewadi, Piscalwadi, Dhangarwadi, Sangvi, Kavathe, Kanhawadi, Karnavadi, Zagalwadi, Tondal, Bavda, Kesurdi, Ambarwadi, Aswali, Bavkalwadi, Balu Patlachiwadi, Sukhed, Padali and Koparde etc.

2) Low Density of Population

The 10 to 20 scheduled caste persons per sq. Km. is found at Naganon, Javale, Shivajinagar, Mhavshi, Rui, pimpare Bk., Shedgwadi, Morve, Khed Bk., Ahire, Dhawadwadi and Nimbodi etc.

3) Medium Density of Population

Such category of population has been found at Palashi, Vadagaon, Lohom, Bholi, Ajnuj, Wathar Bk. Bhade etc. Medium density of scheduled caste population is 20 to 30 persons per sq. km.

4) High Density of Population

The scheduled caste population under the category of above 30 persons per sq. km is found at Bhataghar, Wing, Shirwal, Loni , Bhadavade, Khandala, Padegaon , Andori and Lonand etc.

II) Distribution of Scheduled Tribe Population (1991)

The scheduled tribe population in Khandala taluka is very less found. There are many villages where scheduled tribe population is not found. The distribution of scheduled tribe population is uneven. The density of scheduled tribe population 1 person per sq. km is found at Shindewadi, Sangvi, Mirje, Kawathe, Kanhanwadi, Pargaon, Pimpre Bk, Padali and Koparde etc.

The density of scheduled tribe population 1.01 to 2.00 persons per sq. km is found at Palashi, Ghadagewadi, Tondal, Kanheri, Wathar Bk., Padegaon, Shedagewadi and Khed Bk.

The 2.01 to 3.00 scheduled caste persons per sq. km is found at Bhade, Bhadavade and Sukhed etc.

Above 3.01 persons per sq. km scheduled tribe population is found at Javale, Karanwadi, Khandala, Lonand and Ahire etc.

KHANDALA TALUKA
VILLAGEWISE DENSITY OF SCHEDULED CASTE POPULATION
(1991)

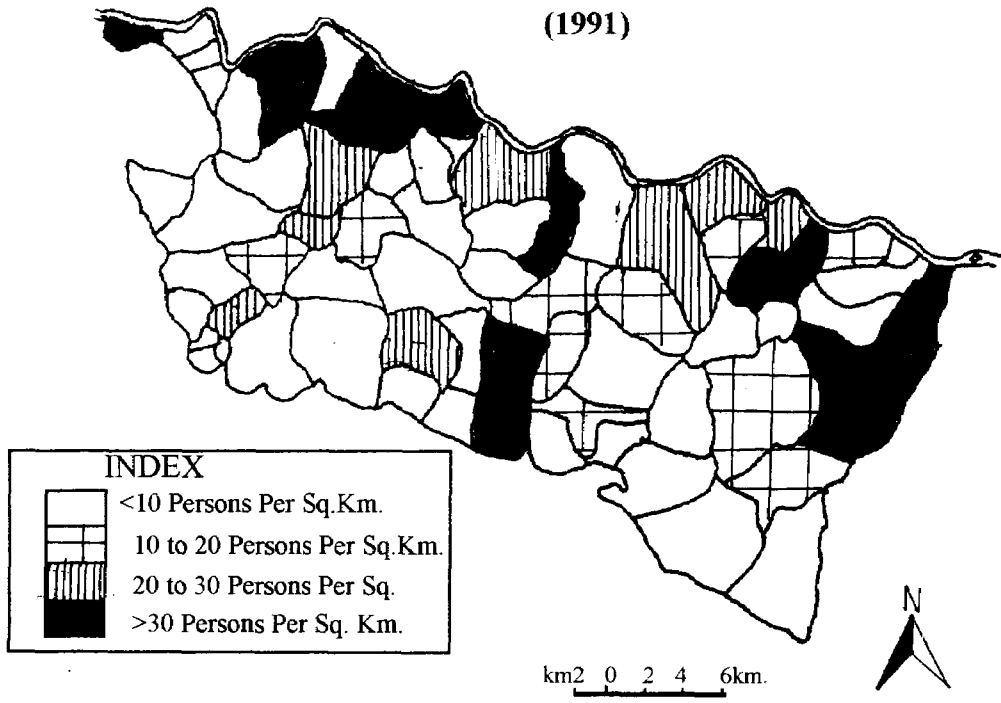


Fig.no.4.9

KHANDALA TALUKA
VILLAGEWISE SCHEDULED TRIBE
POPULATION DISTRIBUTION (1991)

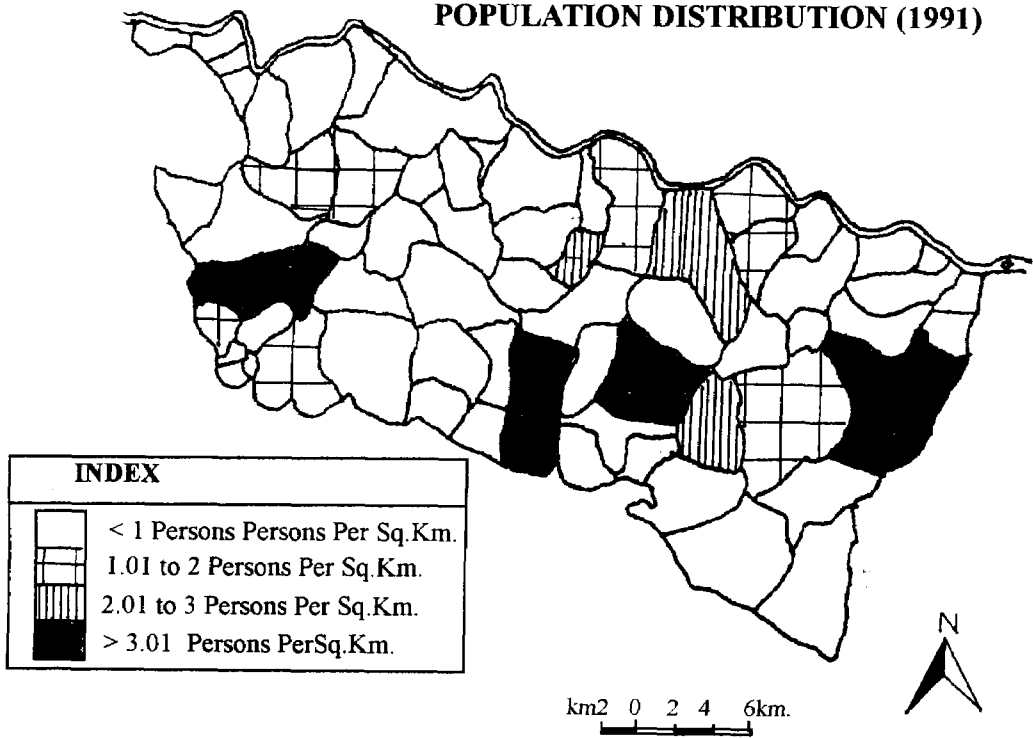


Fig.no.4.9 A

It is observed that population distribution of scheduled cast and scheduled tribe are uneven but only few villages which are economically developed and large in population size having such category. The feudalism also responsible for the distribution of such population . In feudalism various particular needs are completed by the particular casts, so scheduled cast and scheduled tribe population is observed prominently at Lonand, Shirwal and Khandala.

REFERENCE

- 1) Sawant and Athavale, Population Geography, 1994.
- 2) Tiwari R.C. Settlement System In Rural India,' 1984. P.P. 28 to 46.
- 3) Sharma, Settlement Geography of The Indian Desent, 1972
- 4) Kingsley Davis, Population of India and pakistan,' New York: Russell and Russell, 1968.
- 5) G.B. saxena, India Population in Transition, New Delhi; Commercial publication Bureau, 1971, p.p. 52-68.
- 6) District census Kand Book , 1971, 81 and 1991 of the satara district.