The total population of the region under study according to the 1991 Census was 12,91,313. In fact 1.95 per cent of the population of Madhya Pradesh lives in 2.99 per cent of the total area of the State. The region is predominantly rural. About 92.33 per cent of the total population of the region was enumerated in the villages. The percentage of urban population to total population of the district works out to 7.67 which is much below than the state average of 23.21 per cent. Total number of village in this region is 547 as against 543 in the state as a whole, suggesting the over crowding of dispersed smaller settlements in this region.

There are 2109 inhabited villages and 71 forest villages in the study region according to the 1991 Census. (Map 2.1) About 62.00 per cent of the uninhabited villages are in Niwas and Shahpura tahsil and remaining are distributed in Dindori, Mandla and Nainpur tahsils. Mandla tahsil supports the highest number of inhabited villages giving an average of 620 persons per village. Nainpur, Dindori, Niwas and Shahpura tahsils have an average of 631, 578, 485 and 474 person per village respectively.

Owing to the fact that the district is hilly and covered with forests, it is sparsely populated. The entire district being hilly, but the altitude is the least in the South-West corner of the district in Mandla and
MAIKAL PLATEAU
DISTRIBUTION OF VILLAGES
1991

INDEX
SIZE OF POPULATION
- 5,000 and above
- 1,000 — 4,999
- 500 — 999
- 200 — 499
- Less than 200

SOURCE: PRIMARY CENSUS ABSTRACT OF DIFFERENT VILLAGES, 1991
DATA BY VILLAGES
Nainpur tahsil which consists of a compact area of about 200 villages. This is locally known as Haveli i.e. the rice and wheat growing tract. This is why Mandla and Nainpur is relatively more populous. On the other hand the extreme upper valley of Narmada in Niwas and Dindori tahsil is an undulating plain, broken by many flat-topped hills which have favoured sparse population. Niwas, Shahpura and Dindori tahsils are predominantly rural with merely two town in Shahpura and Dindori tahsil each which are hardly urbanised.

The distribution of population has been depicted in Map 2.2. This map has been prepared by plotting the population number by individual villages. The patterns emerging on this map, therefore, give real pattern of habitation in this region. An observation of this map shows that there are some large clusters here and there. The population in the Haveli Plain and Dindori Basin, is relatively dense. The plains or valleys support denser habitation. While the hill and less productive tracts have sparse population.

Mandla is predominantly a region of small sized villages as the number of villages having population less than 500 account for 50.95 per cent of the total number inhabited villages in the district. If we consider the range 501-1999 to be the medium size then the percentage of villages falling under this category works out to 41.83. There are only 25 villages which account for less than 1.11 per cent of the total inhabited
villages which have in each population of less than 2,000. There are 6.11 per cent villages which have in each population of 2001 and more.

DENSITY OF POPULATION

The region is one of the low density areas of Madhya Pradesh in respect of population. There are 97 persons per square kilometre as against 118 persons in the state as a whole. The density in this region is, however, much lower than the average density for India as a whole (221 persons per square kilometre), indicating that the region is one of the thinly populated areas in the national context. The physiological density which measures the pressure of population on the potential agricultural land is 129 persons per square kilometre of the cultivable land. It is lower than the corresponding density for Madhya Pradesh as a whole (232 persons per square kilometre of the cultivable land).

The nutritional density of population per square kilometre of the net sown area is 273 in this region. This is lower than 297 persons per square kilometre of the net sown area in the State as a whole. It is evident from these densities that pressure of the population on land resources of this region is fairly higher than that in Madhya Pradesh as a whole.

There are marked areal variations in the density of rural population in the region which is evidenced from the fact that the arithmetic density ranges from a few persons per square kilometre to more than 100 persons per square kilometre and in exceptional cases increases to more than 200 persons per square kilometre.
About 48 per cent of total villages of the region recorded density of more than 125 persons per square kilometre, some 34 per cent of total villages of the region recorded more than 156 persons per square kilometre and 18 per cent of total villages of the region recorded rural density of more than 188 persons per square kilometre.

The Haveli Plain, Dindori plain and Ghughari-Bichhia Plateau are the high density regions. The higher density of population in these areas is primarily associated with agricultural productivity of the land. The Haveli Plain and Dindori Plain are agriculturally very fertile areas of the region.

The density of population is less than 50 persons per square kilometer in about 8 per cent of the villages of the region. The low density region comprises of the Haveli plain and Dindori plain, where the hilly and forested terrain not only restricts the amount of cultivable land, but also due to the inaccessible character of land. The non-agricultural occupations usually do not support more than 25 per cent of the population which is shown in (Map 2.3).

The contact zones between the relatively high density areas and low density areas are characterised by a population density of 50 to 125 persons per square kilometre. The areas cover extensive stretches in the Haveli plain and Dindori plain. Some small areas also extend over other areas of the region.
MAP No. 2.4

MAIKAL PLATEAU
URBAN, FOREST AND UNINHABITED AREA
1991

INDEX

U Urban Area
Uninhabited Area
Forest Area

SOURCE: PRIMARY CENSUS ABSTRACT OF DIFFERENT VILLAGES, 1991
MAIKAL PLATEAU, DATA BY VILLAGES BASE MAP
Maikal plateau is a mountainous tract comprising the valleys of numbers rivers. It has rich and vast forest resources. Thus, the major part of the Maikal plateau are medium dense. The density of population is low towards the North-west and South-east. The undulating and hilly area have low density of population, where, there is higher pressure of population on agricultural land. It follows that distribution of population in Maikal plateau has been determined primarily from the nature of terrain, and agricultural suitability of the areas. (Map 2.4)

TREND OF POPULATION GROWTH

The trend of population growth in this region during the last nine decades has been quite fluctuating in response to the varying intensity of natural calamities* economic, climatic, educational, and political vicissitudes. The population of the region increased during the period 1901-1991 by 155.56 per cent. The total population at the beginning of this period in 1901 was 318 thousand, which tripled by the year 1991 recording a net increase of 973 thousand persons. The magnitude of this change is evident from the fact that there were only 23 persons per square kilometre at the beginning of the present century, while there were 97 persons per square kilometre in the year 1991, showing a change of more than quarter (¼) during these 90 years (Figure No. 2.1).

There has been a spectacular growth of +27.28 per cent during the decade 1901-1911 which is preceded by a monotonous series of bad years of the epidemics and crop failures ending with two great famines of
FIG. 2.1: MANDLA DISTRICT COMPARATIVE GROWTH RATES, 1901—1991
1898 and 1900. This had resulted in a steep fall in the population at the account of 1901, but the following decade had witnessed a rapid recovery of the population and therefore the 1911 census has shown a record increase of population in this district (+27.28 per cent).

Table 2.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Percentage of Increase</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persons Male Female</td>
<td>Maikal plateau M.P.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1901</td>
<td>318381 157050 161331</td>
<td>- - -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911</td>
<td>405234 200872 204362</td>
<td>+ 27.28 + 27.90 + 26.67</td>
<td>+ 15.30</td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>386446 192083 194363</td>
<td>- 4.64 - 4.38 - 4.89 - 1.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1931</td>
<td>445766 221359 224407</td>
<td>+ 15.35 + 15.24 + 15.45 + 11.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>504580 251188 253392</td>
<td>+ 13.19 + 16.48 + 12.92 + 12.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>547620 269122 278498</td>
<td>+ 8.53 + 7.14 + 9.91 + 8.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>684503 341294 343209</td>
<td>+ 25.00 + 26.82 + 23.24 + 24.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>1037394 517866 519528</td>
<td>+ 18.75 + 18.31 + 19.20 + 25.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>1291313 649485 641828</td>
<td>+ 24.48 + 25.42 + 23.54 + 26.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source:

The 1911-1921 decade proved to be very worse. The fatal influenza epidemic of 1918-19, which was wide spread took a heavy toll of population of the region. Maikal plateau; with a majority of aboriginal population was therefore severly mauled by the epidemic. The 1911-1921 decade registered a decline of -4.64 per cent, of population at that time.
Though no evidence is available about this fact, but it is well known, that the entire state at that time was gripped with plague epidemic during the early years of the decade, and later the fatal influenza epidemic of 1918-19 devastated the whole demographic scene of the region.

It is after 1921 that the region was free from such upheavals and gradual improvement in the medical and health services, the population increased continuously though at a slow growth rate. However the 1941-1951 decade shows a low growth rate, which appears to due to localised effect of the cholera. The following decade viz. 1961-1971, recorded still higher growth rate of population was +25.00 and +27.62 per cent.

It is again in 1981 that the district has registered a decline in the growth rate (+18.75 per cent) not due to any natural calamity but mainly because of the favourable response by the people towards family planning programmes.

The next forty years by contrast, have witnessed an acceleration in growth of population. The population of the region during 1951-1991 increase by 104.38 per cent which was slightly lower than that of state average rate of 106.52 per cent.

It is also evident from table 2.1 that the percentage of population growth in this region was higher than that of state average rate, from 1901-1941, that was conducted before independence. But after 1951, the region's population growth rate has been lower than that of states growth rate evidence, the percentage of population growth in this region
was lower than that of state average rates in every census, except in the year 1961.

Thus, the growth of population during the past 40 years has added a population, nearly equivalent to the size of present population of Nagaland State 12,09,000. Due to gradual improvements in the health facilities, the death rate declined considerably, but the birth rate remained stationary. Therefore, recorded growth rate was very high during the 1951-1991 period.

The Male-Female Differential in Population Growth (1901-1991)

A close scrutinizing of the data summarised in Table 2.1 show that population of male and female have not increase in parallel successions in this region. The net increase of males during the period 1901-1991 (492 thousand was 972 thousand as compared with the increase of female (480 thousand) during the same period. The decadal differences in their rate of increase is also noteworthy. During the first decade of the period under revised female registered higher rate of increase because males out misroated in greater number in search of employment. During the following decade in 1911-1921 female registered higher rate of decrease. Evidently they were exposed to higher risks caused by famines, epidemics, diseases reproductive competitively etc. And consequently they died in greater number. In the year 1931 the rate of increase of male population has been lower than that their female counterpart.
During third decade in 1931 the male growth rate was +15.24 per cent and female growth rate was +15.45 per cent. In the 1941 the male growth rate was dominated over the female growth rate but in 1951 this rate reversed. Because of the mass death of males during freedom struggle movement.

In 1961 Govt. Of India has started control for fast growth of population and introduced the family planning scheme, due to which, in the urban areas there was success in controlling population upto some extent. But in the rural areas, it was just unsuccessful. If you see during 1961 census period there was more male population growth rate than female.

Between 1971-1981, due to emergency period, in Maikal plateau there was compulsory family planning by male-female both, which has reduced the male growth rate than female by implementation of family planning scheme with a new and advanced techniques this growth rate has been checked to +25.42 per cent male and +23.54 per cent females. By this analysis can assume that during 1901-1991 this growth rate was not in equal proportionate.

**SPATIAL PATTERN OF POPULATION GROWTH, 1971-91**

During 1971-91 period there was +47.82 per cent growth in total population of Maikal plateau. In early part of this century (upto 1901-71) Maikal plateau has from 318381 to 873577 population respectively, which become 12,91,313 in 1991.
MAIKAL PLATEAU
GROWTH OF RURAL POPULATION
1971 - 91

SOURCE: PRIMARY CENSUS ABSTRACT OF DIFFERENT VILLAGES, 1991
MAIKAL PLATEAU DATA BY VILLAGES BASE MAP
The 43.86 per cent villages have median value of population growth is more than 47.41 per cent (Median value), out of which 17.80 per cent villages ranging in median value from 47.41 to 59.26 per cent and 11.87 per cent villages have more than 59.26 per cent and remaining 14.19 per cent villages have more than 71.12 per cent of population growth rate.

In the less than 25.54 per cent villages have low growth rate is 35.56 per cent and in 43.09 per cent villages have 11.76 per cent to 35.55 per cent growth rate. On the basis of Map 2.5. it is clear that less 0.29 per cent villages have least growth rate.

Main areas of more growth rate are found in Haveli plain, Dindori plain, Maneri Industrial centre and Nainpur Railway Junction, where there are good agriculture lands and cultivators who can work time to time in field, and these place are rich in providing employment to local population. In the hilly area and plateau and in waste land area do have low growth rate.

AGE COMPOSITION

Age is one of the principal determinants in reproductive behaviour and mortality differences. In Maikal plateau about two-fifth of the population (40.68 per cent) is under 14 years of age, a little over one half (52.37 per cent) is in the age group of 15 to 59 years. A very small proportion (6.95 per cent) is classed under the age group of 70 years and over.
### Table 2.2

**MAIKAL PLATEAU: AGE COMPOSITION OF POPULATION, 1981**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Per cent of Population</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>0-9</td>
<td>26.86</td>
<td>26.49</td>
<td>27.22</td>
<td>27.01</td>
<td>24.94</td>
</tr>
<tr>
<td>10-14</td>
<td>13.82</td>
<td>14.21</td>
<td>13.43</td>
<td>13.87</td>
<td>13.22</td>
</tr>
<tr>
<td>20-24</td>
<td>7.96</td>
<td>7.56</td>
<td>8.35</td>
<td>7.80</td>
<td>9.95</td>
</tr>
<tr>
<td>25-29</td>
<td>7.37</td>
<td>7.40</td>
<td>7.34</td>
<td>7.33</td>
<td>7.88</td>
</tr>
<tr>
<td>30-34</td>
<td>6.31</td>
<td>6.33</td>
<td>6.29</td>
<td>6.33</td>
<td>6.06</td>
</tr>
<tr>
<td>35-39</td>
<td>5.74</td>
<td>5.97</td>
<td>5.51</td>
<td>5.75</td>
<td>5.65</td>
</tr>
<tr>
<td>40-44</td>
<td>4.84</td>
<td>4.79</td>
<td>4.90</td>
<td>4.87</td>
<td>4.54</td>
</tr>
<tr>
<td>45-49</td>
<td>4.50</td>
<td>4.72</td>
<td>4.27</td>
<td>4.50</td>
<td>4.40</td>
</tr>
<tr>
<td>50-54</td>
<td>3.83</td>
<td>4.13</td>
<td>3.52</td>
<td>3.83</td>
<td>3.83</td>
</tr>
<tr>
<td>55-59</td>
<td>2.40</td>
<td>2.52</td>
<td>2.28</td>
<td>2.40</td>
<td>2.36</td>
</tr>
<tr>
<td>60-64</td>
<td>2.56</td>
<td>2.46</td>
<td>2.66</td>
<td>2.58</td>
<td>2.26</td>
</tr>
<tr>
<td>65-69</td>
<td>1.38</td>
<td>1.23</td>
<td>1.54</td>
<td>1.39</td>
<td>1.21</td>
</tr>
<tr>
<td>70 + Above</td>
<td>3.01</td>
<td>2.80</td>
<td>3.22</td>
<td>2.88</td>
<td>4.68</td>
</tr>
</tbody>
</table>


Such a distribution is the age characteristic of a population suggests high fertility over a long period, and high or moderate declining mortality (Bhattacharjee and Shastri, 1976, p. 53).

A higher proportion of the population among the children means a heavy burden on the economically active population as well as of a high reproductive potential in the subsequent period. A large proportion of dependent population trends to reduce the saving and investment and
FIG. 2.2: MALE FEMALE DIFFERENTIAL IN AGE COMPOSITION, 1981

AGE GROUPS

MALE

60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4

FEMALE

70+
65-69

POPULATION IN PER CENT
hinders the rate if economic and social development, which may also have indirect effects on birth rates.

**MALE FEMALE DIFFERENTIAL IN AGE COMPOSITION**

The percentage distribution of males is smaller in the younger and adult age groups (0-9 and above 60 years) than that of females, suggesting higher mortality rates among males. But in 1981 the proportion of males in younger age group (10-14 years) has increased slightly suggesting declining death rates among males. It is the result of gradual improvement in public health services and awareness. In the age group 25 years to 64 years females proportion is relatively lower than males (table 2.2) which indicates higher female mortality in this age group.

The age composition of female population is usually different from that of the male population in younger age groups on account of two factors. Firstly, the mortality among males for a considerable period has been higher than that among the females. Secondly, biological factors at birth and the under enumeration of females may also have some contribution in bringing out sharp male-female differential in the age structure.

**RURAL URBAN DIFFERENTIAL IN AGE COMPOSITION**

The rural urban differential in age group is shown in Table 2.2 which shows the changes among different age group. About 50.34 per cent of the total population in the rural area and 47.18 per cent in the urban
area is in the ages less than 19 years. The proportion of population is the ages 20-29 years is smaller in the rural areas than the corresponding share in the urban areas of the region. This is attributed to immigration of population in urban places for job, employment opportunities, small scale industries, labour class, technical work (Mistri, carpenter, Tailoring etc.).

The rural area have 31.65 per cent and the urban areas have 30.31 per cent of age group between 30-69 years. But the elderly persons more than 70 year are less in rural area (2.88 per cent) than urban area (4.68 per cent). Because of good medical facilities and general awareness.

The historical relations between urbanisation and industrialization, reduced fertility and growth of population. Though migration, have created characteristic differences in the age composition of the rural and urban population of the region (Stockwell, 1964, p. 72).

LITERACY OF POPULATION

The Maikal plateau has made a good stride in the field of education as the literacy rate has moved up from 14.19 per cent in 1961 to 18.34 per cent in 1971, 22.92 per cent in 1981 and 30.11 per cent in 1991. Being predominantly a tribal area the progress made is heartening. Yet the literacy rate in 1991 is much below the state average of 35.52 per cent. The following table is given to facilitate composition with the state averages.
**Table 2.3**

**LITERACY RATE BY SEX(%) IN MAIKAL PLATEAU AND MADHYA PRADHESH - 1991**

<table>
<thead>
<tr>
<th></th>
<th>Maikal plateau</th>
<th>Madhya Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Rural</td>
<td>39.96</td>
<td>14.96</td>
</tr>
<tr>
<td>Urban</td>
<td>73.81</td>
<td>55.87</td>
</tr>
<tr>
<td>Total</td>
<td>42.07</td>
<td>18.00</td>
</tr>
</tbody>
</table>


Regular increase in literacy rate is the outcome of opening of a very large number of primary and middle schools under the various Five Year Plans by government of India and by the State government.

As far as female literacy is concerned this region is one of the most illiterate areas of the State. Even in 1991, the total female literacy was 18.00 per cent of the total was as compared to the corresponding figures (42.07 per cent) for male. Female literacy is lower both in the rural and urban areas, but it is much lower in rural areas than that in urban areas.

The differences in the level of male-female education have been responsible in determining not only the vital and mobility ratios but also in modifying the attitude of people towards their preferences for male-female children.
The rural and urban areas stand in marked contrast to each other in the field of literacy. The literacy rate in the Maikal plateau both rural and urban areas is higher than the state average in respect of all the categories. In the Maikal plateau, the urban literacy is near about two times higher (65.10 per cent) than the rural areas (27.20 per cent). The literacy rate of both the male (73.81 per cent) and female (55.87 per cent) is higher in urban areas, as comparison to rural areas (Male, 39.96 per cent and female, 14.96 per cent).

Sharp regional disparities were measured in terms of literacy in different parts of the region. 21.62 per cent villages of the region has literacy rate is more than 33.02 per cent. Against this 5.92 per cent of the villages had a literacy rate is less than 11.01 per cent. Suggesting a wide gap between the most developed and less developed part of the region.

About 35.14 per cent of the total villages of the region, had a literacy rate is more than 22.01 per cent (Median value). These villages spread in the, Haveli plain, Dindori plain and some small parts of Niwas-Shahpura plateau in Maikal plateau. The male-female literacy in these areas is higher than other parts of the region. (Map 2.6)

The characteristics of rural literacy in these areas suggest that there is significant socio-economic advancement in these parts of the region. The higher literacy may be attributed to the nearness of schools. The areas with less than 22.00 per cent literacy covers less than 37.32 per
MAIKAL PLATEAU
LITERACY
1991

INDEX

PERCENTAGE OF X

LITERACY IN PERCENTAGE

Above

33.02

150

27.51

125

22.01

100

16.51

75

11.01

50

Below

SOURCE: PRIMARY CENSUS ABSTRACT OF DIFFERENT VILLAGES, 1991
MAIKAL PLATEAU BASE MAP DATA BY VILLAGES

U: Urban Area

Uninhabited/Forest villages

2.02468 KILOMETRES
cent of the total villages and 5.92 per cent of total villages had a literacy rate of less than 11.01 per cent.

It is very clear from the Map No. 2.6 that the in 56.76 per cent village have median value of literacy is about 22.01 per cent and in 21.62 per cent villages have median value of literacy is more than 33.02 per cent and remaining 35.14 per cent villages have median value literacy is 27.51 per cent. The places where people have good socio-economic conditions facilities of primary, middle, higher secondary schools, general awareness and good transport facilities etc., have the good percentage of median value literacy.

The male literacy is less than 42 per cent and female literacy is less than 18 per cent in these areas. Thus, male-female differential in literacy is often very high. There are usually more than 2.3 literate male per literate female. The low literacy in these areas may be attributed to the widely located schools and socio-economic conditions.

In between the two extreme of literacy rates are in extensive areas which registered 11.01 per cent to 33.01 per cent literacy. They covers near about three fourth (3/4) of the total villages (72.46 per cent) and which are spread in Haveli plain, Dindori plain, Niwas-Shahpura plateau and Ghughari-Bichhia plateau. The area with more than 33.02 per cent literacy in 21.62 per cent village and less than 11.00 per cent literacy in less than 5.92 per cent villages of the region.
It is interesting to note that the region has more literate than
the state average, among both the sexes, but there is wide gap between
male/female literacy in rural and urban areas. The southern part of the
region has a higher literacy rate than the northern part.

CONCLUSIONS

1. The distribution of population in the Maikal Plateau is equal (Males
50.30 per cent and females 49.70 per cent). The distribution of
population in rural area is 92.33 and urban areas is 7.67 per cent.
Scheduled Tribes population is 60.68 per cent (Male 48.86 and
female 50.14 per cent), Scheduled Castes population is 5.25 per cent
(Male 50.71 and female 49.29 per cent). The plains and valley have
denser habitation, while the hilly forest area have sparse population.

2. In the first five decade (1911, 21, 31, 41 & 51) of this century, the
population growth rate was very high (58.48 per cent) but during the
last four decades, there was a rapid accleration (51.55 per cent) in
the same, while it is very low in the current decade. In these five
decades - 1911, 41, 61, 71 and 1991 in every census except during
1911, the male growth rate was higher than female growth rate. It is
good sign of sex ratio in 1931, 51 and 1981 when female growth rate
was higher than males. In decade of 1981 growth rate was very low,
due to family planning programme. In 1991 the population growth
rate was 24.48 per cent. It means that the population growth rate
has been gradually reduced in this region, due to good literacy rate and family planning programme.

3. The children, adolescents and aged persons constitute nearly half of the total population of the region. It means that there is a heavy dependency burden on the economically active population. The proportion of males is lower in the younger and adult age groups; while it is relatively higher in aged groups than that of females in the region.

4. The educational standard is very poor in the region. Only 30.11 per cent of the total population can read and write. A wide gap between male-female (42.08 and 18.01 per cent) and rural-urban (30.11 per cent and 65.16 per cent) literacy exists. In urban areas male literacy is 73.81 per cent and female is 55.87 per cent. While in the rural area it is 39.96 per cent male and 14.96 per cent female.
REFERENCES


4. Primary Census abstract - General Population, p. 5.
CHAPTER - 3

GENERAL PATTERNS OF SEX RATIOS

Maikal Plateau lies in that part of India, where share of female population is relatively higher as compared to many north-western parts of India. The region largely tribal and forest environment predominates the physical landscape of the region. The sex ratios consequently compare with those in other tribal areas of the country. The sex ratios according to the Census of 1991 was 988 in this region as compared to 932 for the Madhya Pradesh as whole. The disparity between males and females in more striking in rural areas than in the urban areas (Sex ratio is 993 for rural areas and 931 for urban areas). The survey conducted by the present researcher has revealed that the sex ratio was 986 in this region.

The sex ratio varies from 982 females per thousand males in Nainpur Development Block (Tahsil) in the extreme. South-west to 1036 in Ghughari Development Block located in central part of the plateau, suggesting variation in the Maikal Plateau. In the hilly and forest area have more sex ratio than plains, where more male mortality and immigration to urban area.

It may be observed on the Map No. 3.1 a greater part of the region (47.94 per cent) has registered female excesses over males. Of these, some one-tenth are classed under the category with more than 1100 females per 1000 males. These areas are distributed mainly Dadar hills,
GHughari plateau etc. compact area fragmented. These are the areas where share of Tribal population is high (Map 3.1).

Among the areas where females are in paucity i.e., sex ratio is lower than 1000 sex ratio, some 52.06 per cent of the total villages.

In 39.37 per cent village have sex ratio between 900-1000 and in 12.67 per cent villages have less than 900 sex ratio and in 1.69 per cent village has less than 800 sex ratio.

Now it is clear that in 52.06 per cent villages have less than 1000 sex ratio & in 47.94 per cent village have more than 1000 sex ratio.

Two factors need to be heightened to understand the sex composition of population in Maikal plateau. First males and females are not born in equal numbers and second, they do not die in equal number. Mobility behaviour also differs in the sex (Gopalswamy, 1953, p. 59). It has been pointed out (Natarajan, 1972, p. 2) that the female deficiency in India is partly attributable to their under enumeration also. It is however, difficult to appreciate the under-enumeration of females as a responsible factor for producing declining sex ratio in different parts of Madhya Pradesh and in Maikal plateau in all the successive Censuses.

The relatively high rate of female mortality in this part of India as in almost all other parts of the country, is attributable to low status of females in society. They suffer neglect in their infancy and childhood as they are considered a liability to the parents in contrast to the male children who are taken as assets. Further, the females in reproductive age group die in large numbers due to frequent confinements during
MAIKAL PLATEAU
SEX RATIO
(DATA BY VILLAGES)
1991

INDEX
FEMALES PER 1000 MALES
Above 1200
1100
1000
900
800
Below

SOURCE: PRIMARY CENSUS ABSTRACT DIFFERENT VILLAGES, 1991
MAIKAL PLATEAU, BASE MAP DATA BY VILLAGES
pregnancy, usually attended by semi-skilled midwives. Even during their old age, the females suffer neglect. It may be mentioned here that a part of the neglect of females after their marriage is self-imposed. They consider it as their prime duty to sacrifice all comforts for the welfare of their family members. This phenomenon, together with excess of males over female birth, results in significantly low sex ratio. Now social outlook is changing all over the country and as there is gradual improvement in the general health condition and continuing reduction from decade to decade in general and material mortality, one would expect the sex ratio in the Maikal plateau to increases and decreases respectively.

**TRENDS OF SEX RATIO, 1901-1991**

An examination of the data summarised in Table 3.1 reveals that females exceeded the males in the year 1901. It has declined thereafter with the exception only bringing out a net decrease of 49 females per thousand males in the period which followed upto 1971.

The sex-ratio i.e. the number of females per 1000 males in the district works out to 988 as against the state average of 932. This is one of the district in the rice growing region of the state where females out number males which is a peculiarity of this area. The sex-ratio in the district has always been higher than the state average ever since 1901. Also, there has been a declining trend in the sex-ratio right from 1901 to 1971 expect for an abrupt increase in 1951. For the first time in 1971, the position of sex-ratio was reversed when the males were found to be in
excess of females. This position has again been reversed in 1981 and the traditional pattern of females being excess over males is visible. For the second time in 1991, the position of sex-ratio was again reversed when the males were found to be in excess of females. To facilitate compression, the figures of sex-ratio for the state and Mandla district are given in Table 3.1.

The declining trend in the figures of sex-ratio for the state as whole has been checked for the first time in 1981 whereas there has been an upward trend in the case of Mandla district. The reason for the high sex-ratio in the rice growing region of the state is a phenomenon which needs to be further investigated.

Urban areas generally exhibit a low sex-ratio which is not difficult to understand because the sex imbalance in urban areas is mainly because of male selective from adjoining rural areas. Neglect of female babies and lack of maternal care also contributes to higher female mortality which result in excess of males over females.

As per the data available in 1991 the sex ratio had declined, a peculiarity noticed for the second time in ninth decades. This is indeed a healthy sign and it may lead to higher expectation of life for female than what it was before. The decades of the Pre-independence period, with the exception of 1931-41 registered reduced in sex ratio. An obervation of data summarised in Table 3.1 suggest gradual decrease of sex ratio upto 1941 and an intermittent growth thereafter.

The Period 1901-11 registered decrease of 10 females per thousand males. The decade 1911-21 registered a small decrease in the
Proportion of females. During this period there were 05 females per thousand males. The decade 1921-31 registered increase of 02 females per thousand male. The decade 1931-41 registered decrease of 05 females per thousand male. The period 1941-51 registered a very large increase of 24 females per thousand males. During post independence period the decline in sex ratio was sharper recording a decrease of 39 females per thousand males during the period 1951-71 i.e. an average decrease of more than one female per year (Figure 3.1).

Table 3.1
Growth of Sex-ratio in Madhya Pradesh and Maikal Plateau

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td></td>
<td>Total Rural Urban</td>
</tr>
<tr>
<td>1901</td>
<td>990 995 937</td>
</tr>
<tr>
<td>1911</td>
<td>986 991 913</td>
</tr>
<tr>
<td>1921</td>
<td>974 982 878</td>
</tr>
<tr>
<td>1931</td>
<td>973 983 872</td>
</tr>
<tr>
<td>1941</td>
<td>970 980 882</td>
</tr>
<tr>
<td>1951</td>
<td>967 975 907</td>
</tr>
<tr>
<td>1961</td>
<td>953 970 856</td>
</tr>
<tr>
<td>1971</td>
<td>941 956 869</td>
</tr>
<tr>
<td>1981</td>
<td>941 956 864</td>
</tr>
<tr>
<td>1991</td>
<td>932 944 893</td>
</tr>
</tbody>
</table>


FIG. 3.1: COMPARATIVE STUDY OF SEX RATIO IN MADHYA PRADESH AND MAIKAL-PLATEAU, 1991
The deficiency of Males in an area has also been attributed to the preponderance of females at birth and to the higher mortality of males. The migration in this region was mostly of males because of poor socio-economically conditions, and has not exerted much change in the sex ratio of the population of the region as a whole. The lower growth rates for the females since the beginning of this century can therefore be attributed to their lower mortality. The male population increase by 313.55 per cent during the period 1901-1991 against an increase of 297.83 per cent in the female population during the same period. The vital statistics, thought not very reliable show that in India males out numbers females at birth (Natarajan, 1972, P.2). This emphasises the fact that demographically the region has not entered in the modern industrial age with its complementary characteristics of increasing risk of male lives and females lives (Agarwala, 1977, P.56).

Since the census data on the different age group and sex were not available for 1991, therefore 1981 data is being used for study.

AGE DIFFERENTIALS IN SEX RATIO OF POPULATION, 1981

The sex ratio of the population of Maikal Plateau varies by age due to varying incidence of mortality and migration among the two sexes of population of the region. Table 3.3 shows that 50-55 age group recorded lowest sex ratio (855 females per thousand males) in all age groups. Adolescents (10-14) and adults (55-59) also recorded deficiency of females, which may be attributed to the higher mortality among females of these age
groups. The younger adults (15 to 19 and 20-24) age group shows excess of females over males probably because of male selective out migration of population in these age group.

The highest sex ratio in the region (1259 females per thousand males) has been recorded in the 65-69 age group. It is also marked in the age group 0-9, 60-64 and 70 and above high sex ratio in this region. The deficiency of males characteristics of all two subsequent age groups is probable because of higher loss among them due to mortality.

Table 3.2
MAIKAL PLATEAU: AGE DIFFERENTIALS IN SEX RATIO, 1981

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Females per thousand males</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>1031</td>
</tr>
<tr>
<td>10-14</td>
<td>948</td>
</tr>
<tr>
<td>15-19</td>
<td>1011</td>
</tr>
<tr>
<td>20-24</td>
<td>1108</td>
</tr>
<tr>
<td>25-29</td>
<td>995</td>
</tr>
<tr>
<td>30-34</td>
<td>997</td>
</tr>
<tr>
<td>35-39</td>
<td>927</td>
</tr>
<tr>
<td>40-44</td>
<td>1027</td>
</tr>
<tr>
<td>45-49</td>
<td>908</td>
</tr>
<tr>
<td>50-54</td>
<td>855</td>
</tr>
<tr>
<td>55-59</td>
<td>907</td>
</tr>
<tr>
<td>60-64</td>
<td>1087</td>
</tr>
<tr>
<td>65+69</td>
<td>1259</td>
</tr>
<tr>
<td>70 and above</td>
<td>1148</td>
</tr>
<tr>
<td>All ages.</td>
<td>1003</td>
</tr>
</tbody>
</table>

Occupational Differentials in Sex-ratio

In this region, there is difference in number of females in different occupations Table 3.3 makes it clear that the lowest sex ratio has been recorded among business class population (840 females per thousand males) and the highest among agricultural population (1273 females per thousand males). Higher sex ratio in urban areas than rural area.

Table 3.3
Maikal Plateau: Occupational Differentials in Sex-ratio

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of Females per thousand Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Agriculture</td>
<td>978</td>
</tr>
<tr>
<td>Labour</td>
<td>994</td>
</tr>
<tr>
<td>Business</td>
<td>871</td>
</tr>
<tr>
<td>Service</td>
<td>1029</td>
</tr>
<tr>
<td>Total</td>
<td>979</td>
</tr>
</tbody>
</table>

Source: Survey conducted by the Research Scholar during Feb-March 1998.

In this region the lowest sex ratio has been recorded in business class (871 females per thousand males) and the highest sex ratio in service class (1029 females per 1000 males. And in the rest, i.e. the agriculture's (978) and the labour (994). The Sex ratio is near moderate.

In rural area's the lowest sex ratio has been recorded in business class population (914 females per thousand males) and the highest in service class (1067 females per 1000 males).
In urban area's the lowest sex ratio has been recorded in business class population also (840 female per thousand males) and the highest sex ratio has been recorded in agricultural Population (1273 female per thousand males). The lowest sex ratio is recorded in business class. There are many reasons for the this, some of them are as follow:

1. The study area is covered by plateau, hilly, forest and terrain. So the scope of Business class in only possible in plain areas where businessman have more density in plains. The have more females mortality.

2. In the business class have good contact in the urban areas in other districts, so they marry daughters to urban areas. Therefore the females are reduced in number.

3. Due to lack of medical facilities & maternity facilities. In this study area have more female mortality rate. As compare to labour class, the business class having more female mortality.

The highest sex ratio recorded in service class because their economic and educational conditions are better so they do not differ in male and female, in this region. There is difference in number of females in different, religions.

The sex ratio varies by caste in this region. The highest sex ratio recorded in scheduled tribes (1034) and the lowest in Jains (933) or Thakurs (938) and in the rest i.e. the Brahmins (1027), Kayastha (1000), Baiga (976), Dhimar (948), Kachhi (941), (Patel) 1019, Yadaw (930) and
scheduled castes Kurmi (1027) is higher medium. A later chapter 7 will discuss in detail the caste differential in sex ratio.

**SPATIAL PATTERNS OF SEX RATIO**

There are significant variation in the sex ratio within the region. Except four development block in the region (Mohgaon, Ghughari, Mavai and Amarpur) all the other blocks Mandla Tah. & Dindori Tah. recorded paucity of females. A distinct pattern is discernible in the sense that as we move from the Eastern part of the region towards the western parts, the sex ratio is found to be increasing. The ratio range from 968 in Karanjia development block (Dindori Tahsil) in the extreme central Parts to 1036 in Ghughari Dev. Block of Mandla Tahsil and the higher sex ratio is found in western parts in Niwas Development Block of Niwas Tahsil in the Maikal Plateau. The sex ratio is lower than the district average of 968 females per thousand males in the areas east of the Dindori Basin, while it is higher than this in Central parts of the Maikal Plateau. The evaluation of a distinctly female deficient population over a greater part of the region and that of a characteristically zonal pattern of sex ratio are primarily the result of the past changes in the male and females mortality differences.

From the map No. 6.1 four types of areas can be distinguished:

1. **Areas of very high sex ratio (More than 1100).**
2. **Areas of high sex ratio (1000-1099)**
3. **Areas of low sex ratio (900-999)**
4. **Areas of very low sex ratio (Below 900)**
1. Areas of very high sex ratio

A little less than One tenth (10.21 per cent), villages of the region are under the very higher category of sex ratio out of these 1.79 per cent villages have registered extremely high sex ratio of more than 1200 females per thousand males and the rest of 8.42 per cent villages a very high sex ratio. This include central parts (Ghughari-Bichhia plateau), South west and western part of Maikal plateau. The sex ratio in these areas varies from 1208 in Bhudkur Ryt, 1211 Persel, 1212 Paddikan Ryt, 1214 Ghusiya Ryt, 1215 Pachgaon Ryt, 1216 Kutwahi, 1219 Juna Mandla, 1220 Lakhanpura Mal & Chandi Mal, 1226 Padoriya Mal, 1231 Gonjhi Ryt, 1234 Chirpani Ryt, 1235 Surajpura, 1242 Jamunpani, 1250 Beslagon Ryt, 1267 Bamhori Jar, 1268 Tawri Ryt, 1280 Kutdar Ryt, 1283 Khitaula Mal, 1298 Sarai Tola, 1299 Sonp Ryt, 1302 Bilgaon, 1316 Khamhariya & Bondi, 1333 Girwarpur, 1357 Harrabhat Jar, 1429 Pondi Mal, 1531 Batanga Ryt, 1600 Jamkhar respectively. Jamkhar village recorded the highest sex ratio 1600 and it located in this high sex ratio belt. The pressure of population on land resources is high in these areas. It is evident from the fact that the rural and agricultural densities are very high. Degree of urbanization is low, agriculture is the only important economic activity and slow growth rate of population, resulting in the male selective out migration.

2. Areas of high Sex ratio

In the Maikal plateau about 37.73 per cent villages sex ratio varies from 1000 to 1099, which are located in plains and plateau areas i.e.
on the east of Dindori plain, west of Narmada banjar plain (Haweli plains) and is the central Ghughari Bichhia plateau & in North western Niwas Shahpura plateau. The high sex ratio is observed in 1099 Karanpura Mal, Dhorgaon, Gutalwah and 1000 sex ratio is observed in Umariya, Mendhi, Bhajia villages.

Since these areas, are well connected with the urban areas, so the people after agriculture and cultivation season, they migrate to the big cities for job and good earning. Due to the migration of people from rural areas to urban areas creates more population pressure on the urban areas. By this sudden increase in urban population, the agriculture land areas are rapidly reduced. In the rural areas, the fertility of soil has reduced due to their traditional method of forming.

3. **Area of Low Sex ratio (900-999)**

In 39.37 per cent village have low sex ratio (900-999), where per thousand male have 900 to 999 female are found. In this study area have sex ratio is 988, which is found Nainpur, Dindori, Niwas Tahsil located on hilly area. There is no prominent difference in the male/female mortality.

4. **Areas of very low Sex ratio (Below 900)**

Area of very low sex ratio is below 900 females per thousand males, include nearly less than 12.69 per cent villages of the region, usually, the sex ratio is 333 to 900 females per thousand males in these areas. They spread mostly towards Northern part of Niwas Shahpura
plateau and southern part of Dindori plains. Bachhargaon and Ramguda villages recorded lowest sex ratio with 333 and 428 females per thousand males in the region.

It must be admitted that as yet there is no completely proved facts which can satisfactorily explain this unusual deficiency of female in these areas. In view of Gosal (1967) to associate smaller sex ratio with male immigration is hardly tenable. In fact the female deficient area in the region are the extension of those of north western India, agriculture is the only important economic activity and slow growth rate of population, resulting in the male selective migration.

A relatively bigger shortage of females in these areas is attributes mainly to the common rich of death. The net migration in these areas has been fairly small. The pressure of population on land resources is big and the area has been free from the sex selective migration.

To sum up, the existing spatial pattern of sex composition of the region's population is closely associated with the economic condition of different parts of the region. The sex ratio is high in those parts of the region where the pressure of population is relatively high, degree of urbanization and growth rate of population is low. Agriculture is the only important economic activity and percentage of Scheduled Tribes and Scheduled Castes in relation to the total population is high. Such areas have induced male selective outmigration. On the other hand, sex ratio is low in those parts of the district where growth rate of population and degree of urbanisation is high, resulting in male immigration, where
secondary and tertiary activities engage larger number of male workers and the percentage of Scheduled Tribes and Scheduled Castes is low.

CONCLUSIONS

1. Except in the case of villages of the region, the whole Maikal plateau have normal low deficiency of males. This phenomenon is attributable to the usually normal sex ratio at birth and higher rate of male mortality.

2. The deficiency of male is excessive in the areas north-west of Niwas-Shahpura Plateau, Haveli plain and South-West of Dindori plains.

3. The proportion of females has persistently declined during the period 1901-1971 registering a net decrease of 31 females per thousand males. In 1971 and 1991 in nineth decades, the sex ratio has been reduced.

4. Madhya Pradesh recorded a relatively higher sex ratio than the India, except some areas in western part, the whole of the state has paucity of female. There is successive decline in the percentage of females from southern parts to the northern parts of the state.

5. Maikal plateau recorded a relatively higher sex ratio than Madhya Pradesh. Except some areas in northern-western part. There is successive decline in the percentage of females from north-west to north-east parts of the region.
6. Infant and old adults age groups recorded deficiency of males, which may be attributed to the higher mortality among males of those age groups.

7. The younger adults (15-19 & 20-24) age groups shows excess of females over males probably because of male selective out migration of population these ages.

8. In the occupational differential in sex ratio in Maikal plateau the business class population have low sex ratio but the service class have higher sex ratio.
REFERENCES


