

## C H A P T E R [III]

### SPATIAL DISTRIBUTION OF POPULATION AND SEX-RATIO

- 3.1.0 INTRODUCTION
- 3.2.0 SPATIAL DISTRIBUTION OF POPULATION
  - 3.2.1 DISTRIBUTION OF POPULATION (1981)
  - 3.2.2 DISTRIBUTION OF RURAL POPULATION (1981)
  - 3.2.3 SPATIAL DISTRIBUTION OF POPULATION (1991)
  - 3.2.4 DISTRIBUTION OF RURAL POPULATION (1991)
  - 3.2.5 CHANGES IN DISTRIBUTION OF POPULATION (1981-91)
  - 3.2.6 DISTRIBUTION OF PHYSIOLOGICAL DENSITY (1991)
  - 3.2.7 DISTRIBUTION OF AGRICULTURAL DENSITY (1991)
  - 3.2.8 CONCENTRATION OF POPULATION IN RELATION TO AREA(1991)
- 3.3.0 SPATIAL DISTRIBUTION OF SEX - RATIO
  - 3.3.1 DISTRIBUTION OF SEX - RATIO (1981)
  - 3.3.2 DISTRIBUTION OF SEX - RATIO (1991)
  - 3.3.3 CHANGES IN SEX - RATIO (1981-91)
  - 3.3.4 SEX - RATIO IN LITERATES (1991)
  - 3.3.5 SEX - RATIO IN ILLITERATES (1991)
  - 3.3.6 SEX - RATIO IN WORKING POPULATION (1991)
  - 3.3.7 SEX - RATIO IN NON-WORKING POPULATION (1991)



## C H A P T E R [III]

### SPATIAL DISTRIBUTION OF POPULATION & SEX-RATIO

3.1.0

#### I N T R O D U C T I O N :

The analysis of population distribution and density is fundamental for understanding the population geography of any area<sup>1</sup>. The population distribution is a spatial arrangement of people in a region, which is mainly based on the aggregate of investigation about the people within small areal units of a region. Population distribution is an dynamic process, which is everchanging and its causes and effects vary in spatio-temporal frame<sup>2</sup>.

Population density is another significant measures of population studies. Density of population indicates the man land ratio. It denotes degree of population concentration in a particular area. The regional variation in the distribution and density of population is largely affected by the various physical, economic, social and cultural factors.

Sex-ratio signifies the number of females per thousand males. It generally influences the form and tempo of life in any country. It also affects the social, economic and political structure of a region. Further, they exert their influences on birth and death rates, migration, marital status, working force and gross national products.

This chapter deals with the analysis of the spatial pattern of distribution of population in 1981 and 1991. It has been also attempted, in this chapter, to analyse spatial pattern & different components of sex-ratio in 1981 & 1991.

### 3.2.0 SPATIAL DISTRIBUTION OF POPULATION

#### 3.2.1 DISTRIBUTION OF POPULATION (1981)

The population figures of the State for 1981 revealed a crude density of 204 persons per km<sup>2</sup>. However, there was wide variation in population density ranging from 41 persons per km<sup>2</sup> in Gadchiroli district to 13644 persons per km<sup>2</sup> in Gr.Bombay district (Table 3.1).

Density of population was very low (Below 125 persons per km<sup>2</sup>) in Gadchiroli and Jalna districts due to hilly-forested area and drought prone area respectively. Undulating land, thick forest cover and poor soils were responsible for low density of population (125 to 175 persons per km<sup>2</sup>) in Ratnagiri, Sindhudurg, Yawatmal and Chandrapur districts. On the other hand drought prone area, poor soils, less development of agriculture and transport network were responsible for low density of population in Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Buldhana, Akola, Amravati, Yawatmal and Wardha districts (Fig. 3.1.A).

Density of population was high (225 to 275 persons per km<sup>2</sup>) in Pune and Nagpur districts because of the development of agriculture, industry and transport network. Whereas Gr.Bombay and Thane districts had very high (Above 275 persons per km<sup>2</sup>) population density. Highly fertile soils, development of lift irrigation and agriculture, development of transport network and agro-based industries were responsible for very high population density in Kolhapur district.

TABLE No. 3.1

DENSITY OF POPULATION IN MAHARASHTRA (1981)

Sr No	District	Crude Density per sq.km	Rural Density per sq.km
1	Gr.Bombay	13644	N.R.
2	Thane	349	197
3	Raigarh	208	181
4	Ratnagiri	167	154
5	Sindhudurg	148	141
6	Nashik	192	135
7	Dhule	152	126
8	Jalgaon	223	170
9	Ahmednagar	159	140
10	Pune	266	145
11	Satara	195	174
12	Sangli	213	174
13	Solapur	174	125
14	Kolhapur	323	245
15	Aurangabad	173	119
16	Jalna	119	113
17	Parbhani	149	132
18	Beed	133	113
19	Nanded	166	138
20	Osmanabad	137	123

Sr No	District	Crude Density per sq.km	Rural Density per sq.km
21	Latur	177	152
22	Buldhana	156	129
23	Akola	173	132
24	Amravati	152	109
25	Yawatmal	128	108
26	Wardha	147	110
27	Nagpur	260	117
28	Bhandara	199	173
29	Chandrapur	135	103
30	Gadchiroli	41	43
	Maharashtra	204	135

SOURCE: 1) Census of India 1991, Paper II, Table.1.

2) Handbook of Basic statistics of Maharashtra  
State 1983.

3) Author

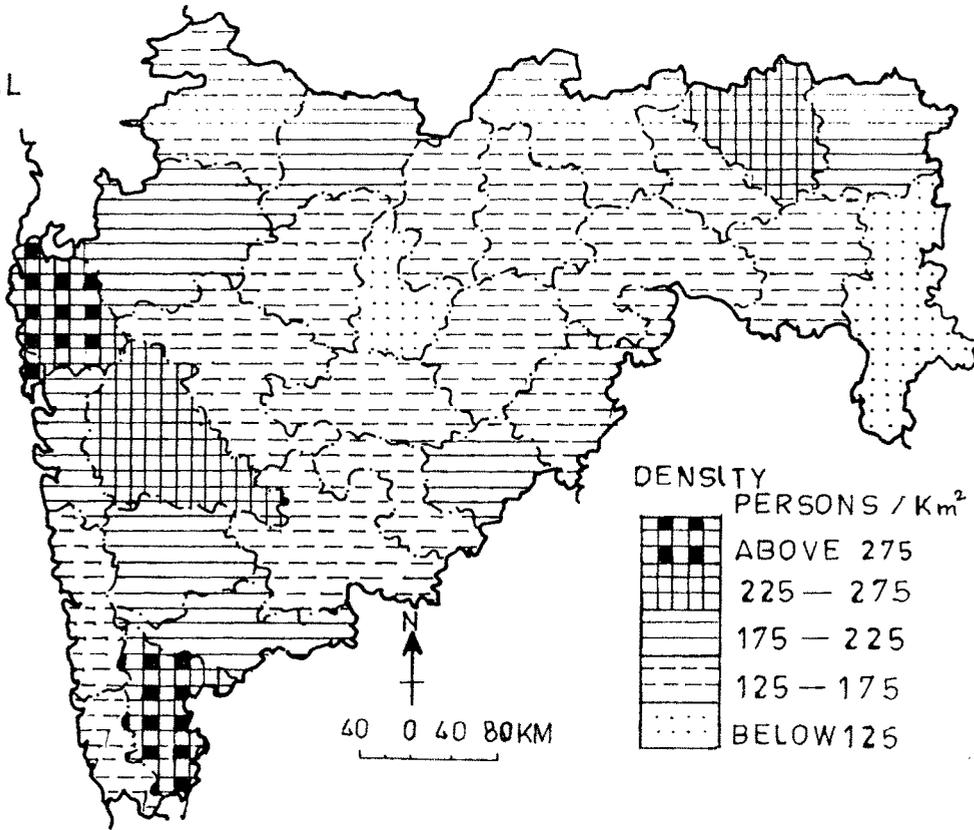


# THE MAHARASHTRA

## DISTRIBUTION OF POPULATION

[ 1981 ]

A  
TOTAL



B  
RURAL

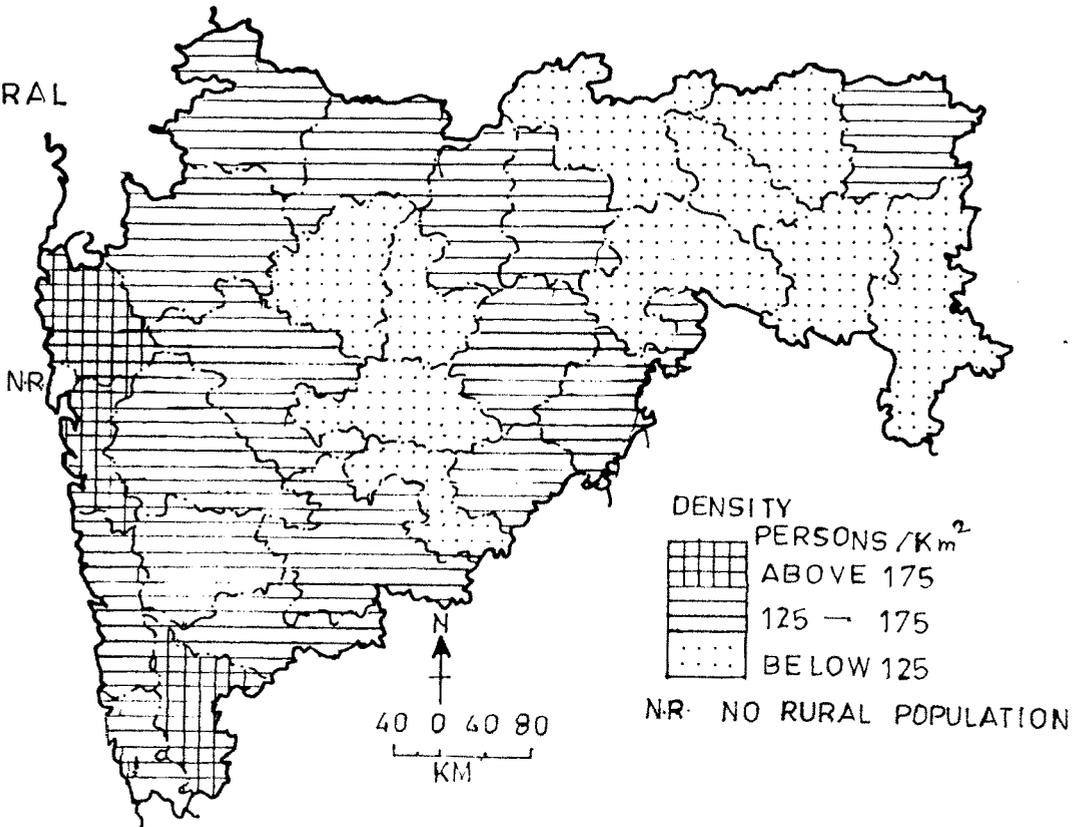


FIG. 3.1



## 3.2.2

DISTRIBUTION OF RURAL POPULATION (1981)

The density of rural population in the State as per 1981's Census was 135 persons per km<sup>2</sup>. It was the lowest (43 persons per km<sup>2</sup>) in Gadchiroli district and the highest (245 persons per km<sup>2</sup>) in Kolhapur district (Table 3.1).

It is obvious from the Fig.3.1.B that high rural density (Above 175 persons per km<sup>2</sup>) was recorded in Thane, Raigarh and Kolhapur districts due to rich soil, irrigation facilities and healthy climate.

Aurangabad, Jalna, Beed, Osmanabad, Wardha, Nagpur, Amravati and Yawatmal districts had low (below 125 persons per km<sup>2</sup>) density of rural population due to partly semi-arid region and least agricultural development and partly due to out migration of population. While in Chandrapur and Gadchiroli districts density of rural population was low due to undulating topography, poor soils, lack of irrigation facilities and thick forest cover.

## 3.2.3

SPATIAL DISTRIBUTION OF POPULATION (1991)

As per 1991 Census, the density of population in the State is 256 persons per km<sup>2</sup>. It ranges from 55 persons per km<sup>2</sup> in Gadchiroli district to 16436 persons per km<sup>2</sup> in Gr.Bombay district (Table 3.2).

Very low density of population (Below 100 persons per km<sup>2</sup>) is recorded in Gadchiroli district where topography, climate and soils are not favourable for human being.

Low density of population (100-200 persons per km<sup>2</sup>) is observed in thirteen districts (Fig.3.2.A) due to

TABLE NO. 3.2

DENSITY OF POPULATION IN MAHARASHTRA (1991)

Sr No	District	Crude Density per sq.km	Rural Density per sqkm	Physio-logical Density per sqkm	Agricul-tural Density per sqkm
1	Gr.Bombay	16434	N.R.	159831	125
2	Thane	547	203	1952	219
3	Raigarh	254	211	965	240
4	Ratnagiri	188	171	657	181
5	Sindhudurg	159	148	758	189
6	Nashik	247	164	425	119
7	Dhule	192	154	342	106
8	Jalgaon	271	199	390	117
9	Ahmednagar	197	168	292	92
10	Pune	352	179	551	93
11	Satara	233	207	422	109
12	Sangli	256	205	377	94
13	Solapur	216	156	289	73
14	Kolhapur	387	291	730	176
15	Aurangabad	219	150	320	70
16	Jalna	176	149	228	83
17	Parbhani	191	151	250	85
18	Beed	170	141	223	74
19	Nanded	221	177	317	99
20	Osmanabad	168	143	223	76

Sr No	District	Crude Density per sqkm	Rural Density per sqkm	Physiological Density per sqkm	Agricultural Density per sqkm
21	Latur	234	188	320	99
22	Buldhana	195	156	274	101
23	Akola	209	151	272	88
24	Amravati	181	123	306	91
25	Yawatmal	133	127	242	87
26	Wardha	169	125	248	78
27	Nagpur	331	130	598	90
28	Bhandara	226	197	585	94
29	Chandrapur	155	113	375	108
30	Gadchiroli	54	50	403	156
	Maharashtra	256	160	437	108

## SOURCE

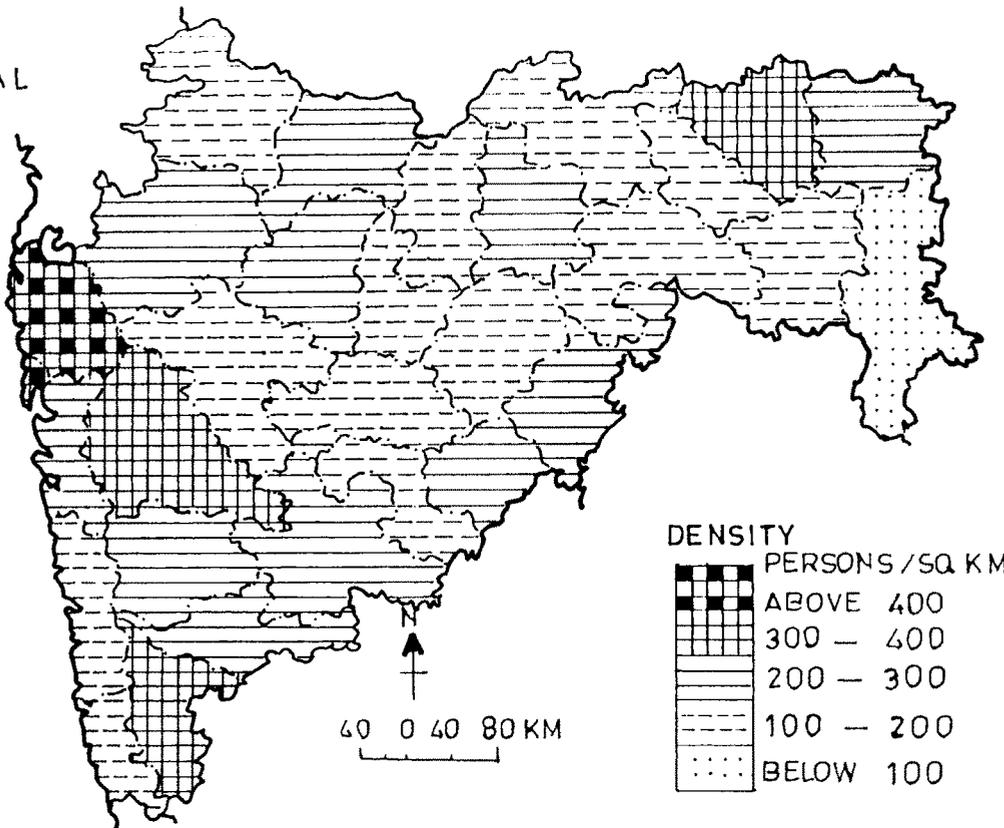
- 1) Census of India, 1991, Paper II, Statement 9.
- 2) Census of India, 1991, Series 14, Paper 3.
- 3) Apitome in Agriculture of Maharashtra State 1992, Part-II
- 4) Author.



# THE MAHARASHTRA

## DISTRIBUTION OF POPULATION (1991)

A  
TOTAL



B  
RURAL

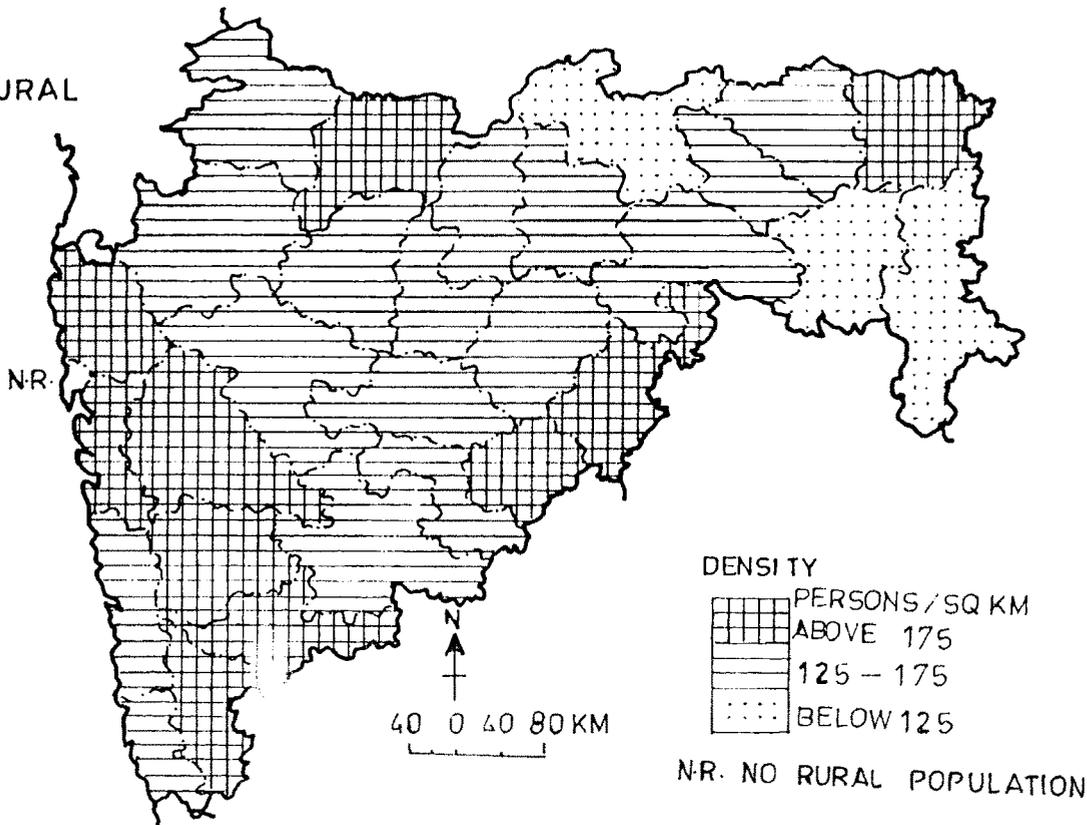


FIG. 3.2

undulating terrain, high forest area, less development in agriculture, industry and transport network.

High population density (300 to 400 persons per km<sup>2</sup>) is found in Pune, Kolhapur and Nagpur districts due to fertile soils, development of irrigation facilities and transport network.

Gr.Bombay and Thane districts have recorded very high population density (Above 400 persons per km<sup>2</sup>) due to the development of transport network, industries and trade.

Distribution of population in the State is uneven (Fig.3.2.A). Density of population in the Western Maharashtra is high due to fertile soils, development of irrigation and agriculture, development of agricultural markets, transport network and agro-based industries. Northern Konkan has high density of population because of phenomenal increase in urbanisation and industrialization.

North - Western part of the State is also densely populated due to development of transport and tank irrigation facilities which have further helped both for industrial and agricultural development.

North - eastern part is densely populated because of exploitation of minerals, development of agriculture, agro-based industries and transport network.

Remaining parts (i.e. Central, northern and eastern) of the State are thinly populated due to poor soils, hilly areas, scarcity of irrigation facilities and lack of industrial and transport development.

## 3.2.4

DISTRIBUTION OF RURAL POPULATION (1991)

According to 1991 Census, the density of rural population in the State is 160 persons per km<sup>2</sup>. It may be seen from the table 3.2 that there is wide variation in rural density ranging from 50 persons per km<sup>2</sup> in Gadchiroli district to 291 persons per km<sup>2</sup> in Kolhapur district.

Density of rural population is high (Above 175 persons per km<sup>2</sup>) in ten districts viz. Thane, Raigarh, Pune, Satara, Sangli, Kolhapur, Jalgaon, Latur, Nanded and Bhandara. Rich fertile soils and improvement in irrigation facilities have made agriculture more secure. Double cropping, a variety of cash crops and a number of agro-based industries are responsible for high rural density in above districts.

In three districts, namely Amravati, Chandrapur and Gadchiroli, density of rural population is found low (Below 125 persons per km<sup>2</sup>). It is due to poor soils, thick forest cover, undulating topography and hilly areas (Fig.3.2.B).

It may also be seen from Fig.3.2.B that density of rural population is high in those districts which have fertile soils, high to moderate rainfall, healthy climate and improved irrigation facilities, while density of rural population is low in those districts which have low rainfall, lack of sufficient irrigation facilities, poor soils, undulating terrain and thick forest cover.

## 3.2.5

CHANGES IN DISTRIBUTION OF RURAL POPULATION(1981 - 1991) :

As per 1981 Census 64.97 percent population of the State was living in rural areas. The Western Maharashtra was thickly populated while central and eastern parts of the State were thinly populated.

On the other hand, according to 1991's Census, 61.27 percent population of the State is residing in rural areas. The Western Maharashtra (Pune, Satara, Sangli, Kolhapur districts), north Konkan (Thane and Raigarh districts), north eastern (Bhandara district), south central (Latur, Nanded districts) and north western (Jalgaon district) parts of the State are comparatively thickly populated, while eastern (Chandrapur, Gadchiroli districts) and north central (Amravati district) parts are sparsely populated. Other parts of the State are moderately populated.

It is apparent from the Fig. 3.1.B and 3.2.B that there is significant change in the distribution of rural population in 1991 as compared to 1981.

Central part (Aurangabad, Jalna, Beed, Osmanabad districts) and some districts of eastern part (Yawatmal, Wardha, Nagpur districts), which were thinly populated in 1981, are moderately populated in 1991. It also reveals from the Fig.3.1.B and 3.2.B that Western (Pune, Satara, Sangli districts), South central (Latur and Nanded districts) and north eastern part (Bhandara district) of the State, which were thinly populated in 1981, are thickly populated in 1991.

### 3.2.6 DISTRIBUTION OF PHYSIOLOGICAL DENSITY (1991) :

The physiological density is the ratio between population and cultivable land of a region. Thus, this is a more significant indicator to evaluate the real economic condition of a region<sup>3</sup>.

Physiological density of Maharashtra is 437 persons per km<sup>2</sup>. The lowest physiological density (223 persons per km<sup>2</sup> of cultivable land) is found in Beed and Osmanabad districts while highest physiological density (159831 persons per km<sup>2</sup> of cultivable land) is found in Gr.Bombay district (Table 3.2).

Physiological density in Gr.Bombay, Thane, Raigarh, Sindhudurg, Ratnagiri and Kolhapur districts is very high (Above 600 persons per km<sup>2</sup> of cultivable land) while it is high (500 to 600 persons per km<sup>2</sup> of cultivable land) in Nagpur, Pune and Bhandara districts (Fig. 3.3). In the above mentioned districts physiological density is high partly due to undulating topography resulted in low cultivable land and partly due to high and assured rainfall and high productivity of soils of river valleys.

Low physiological density (300 - 400 persons per km<sup>2</sup> of cultivable land) is found in Sangli, Jalgaon, Dhule, Aurangabad, Nanded, Latur, Amravati and Chandrapur districts. Very low (Below 300 persons per km<sup>2</sup> of cultivable land) physiological density is found in Akola, Buldhana, Jalna, Parbhani, Beed, Osmanabad, Solapur, Wardha, Ahmednagar and Yawatmal districts. Vast cultivable land, low and unassured

THE MAHARASHTRA

DISTRIBUTION OF PHYSIOLOGICAL DENSITY  
(1991)

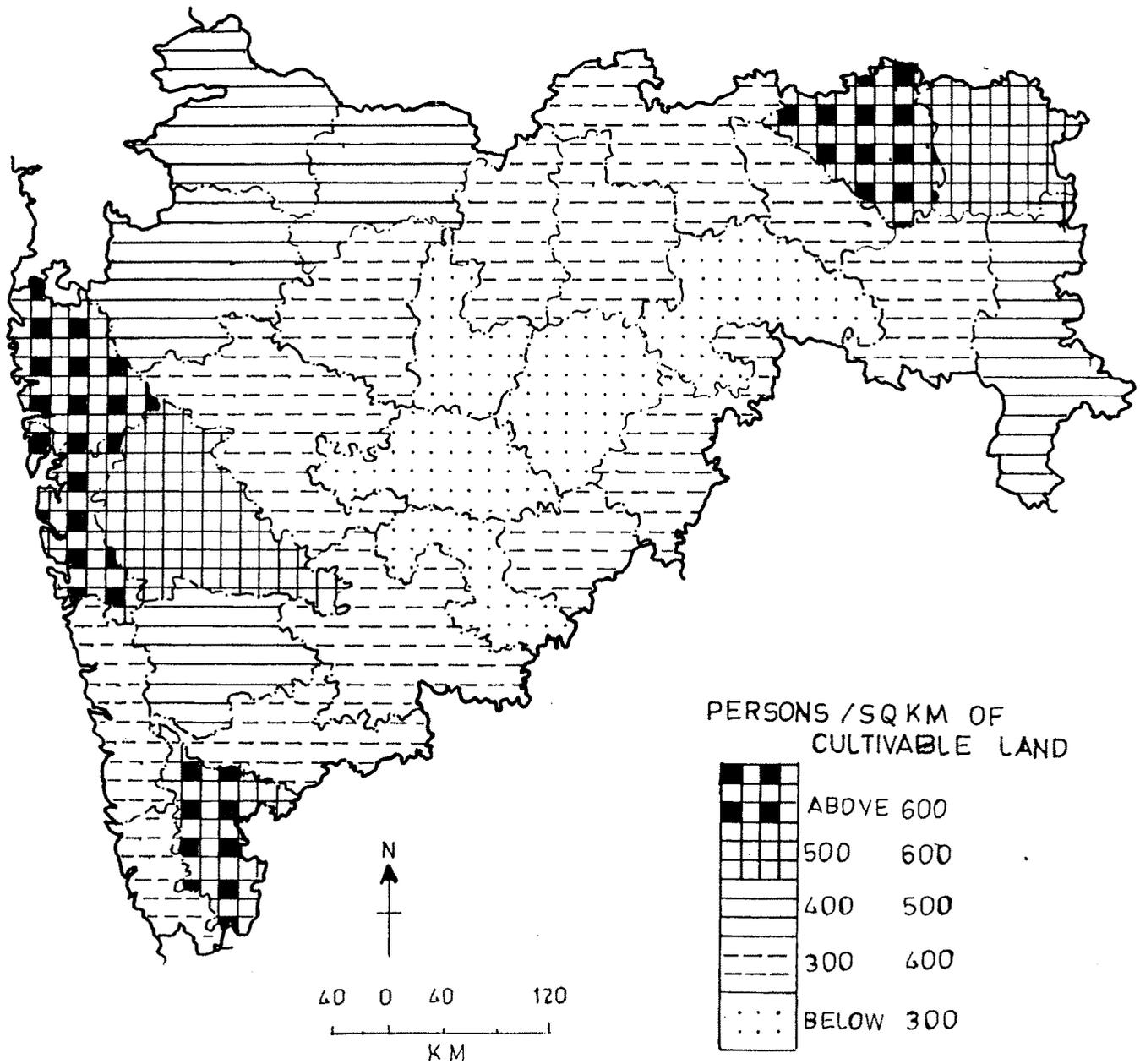


FIG. 3.3

rainfall, high rate of out migration are responsible for very low physiological density in the above districts.

### 3.2.7 DISTRIBUTION OF AGRICULTURAL DENSITY (1991) :

Agricultural density is expressed by the ratio of agricultural population and the cultivable area. It is an effective measure and useful index of man-land relationship in those regions where vast majority of inhabitant are engaged in agriculture<sup>4</sup>.

Agricultural density of Maharashtra in 1991 is 108 persons per km<sup>2</sup>. Table 3.2 shows district level variation in agricultural density ranging from 73 persons per km<sup>2</sup> in Solapur district to 240 persons per km<sup>2</sup> in Raigarh district.

High (Above 120 persons per km<sup>2</sup>) agricultural density is found in five districts viz. Thane, Raigarh, Kolhapur, Bhandara and Gadchiroli (Fig. 3.4). Undulating topography and forest cover are responsible for limited cultivable land, while due to favourable conditions (soil and rainfall) for agriculture, majority of the population is engaged in agricultural activity and both are responsible for high agricultural density in these districts.

In Ratnagiri and Sindhudurg districts due to undulating topography resulted in limited cultivable land and due to out migration of male population, agricultural density is very low (below 80 persons per km<sup>2</sup>). In Sangli, Solapur, Aurangabad, Jalna, Parbhani, Beed, Osmanabad, Yawatmal and Wardha districts the topographical structure is in general plain resulting into vast area available for cultivation.

THE MAHARASHTRA  
 DISTRIBUTION OF AGRICULTURAL DENSITY  
 (1991)

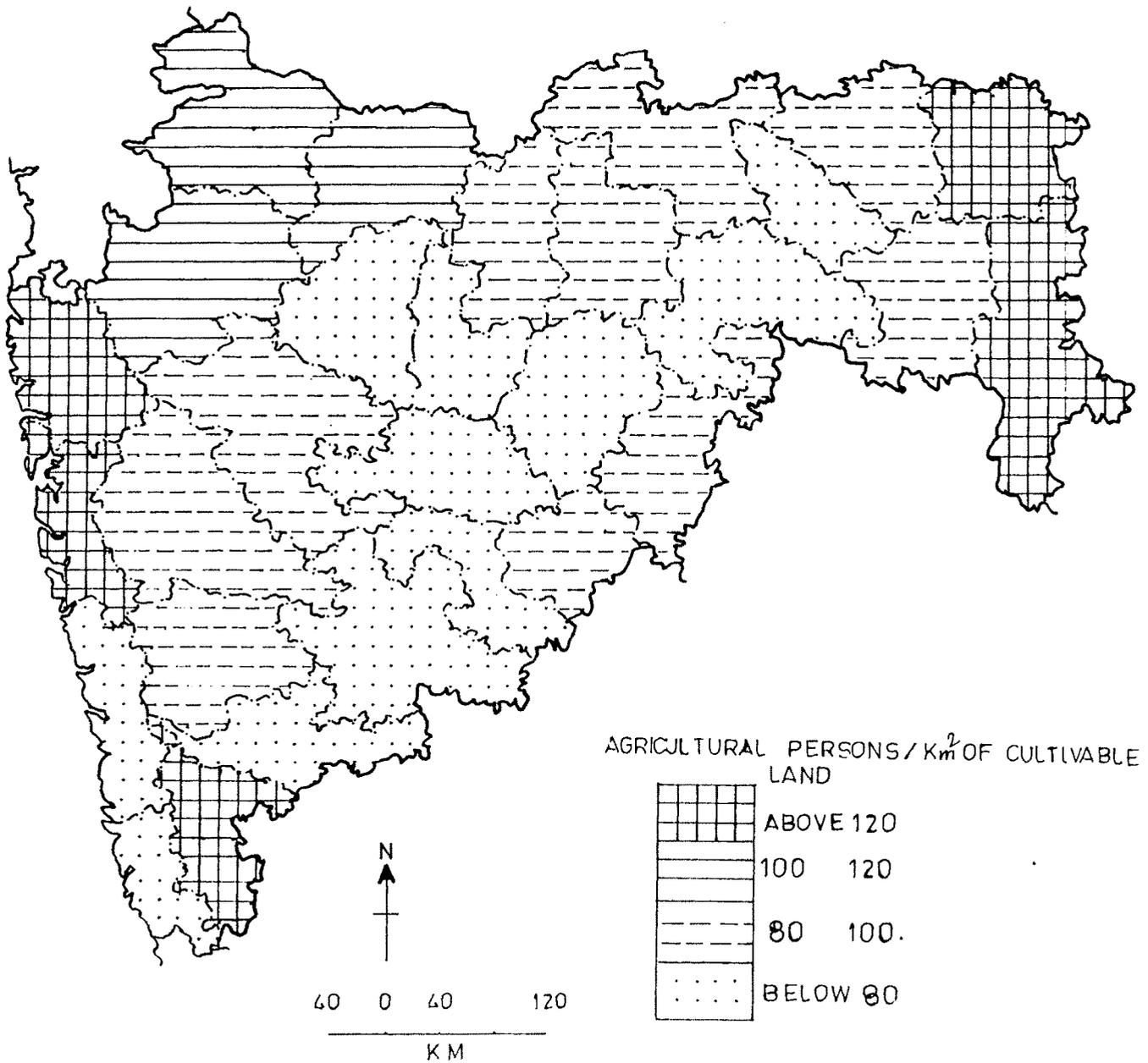


FIG. 3.4

However, in these districts due to semi-arid scanty rainfall, lack of irrigation facilities agricultural development is hindered and there is strong out migration of the people resulting into very low agricultural density.

3.2.8

CONCENTRATION OF POPULATION IN RELATION

TO AREA (1991) :

Fig.3.5 and Gini's coefficient value (0.26) clearly shows the low concentration of population in relation to area in the State. But there is variation in concentration of population according to district level. Only six districts namely Gr.Bombay, Thane, Jalgaon, Pune, Kolhapur and Nagpur have high concentration of population. These six districts together contribute 38.4 percent of the total population of the State, while they together shared only 17.9 percent area of the State.

On the other hand in eight districts viz. Gadchiroli, Jalna, Osmanabad, Chandrapur, Yawatmal, Amravati, Ahmednagar and Beed the concentration of population is very low. All these districts together shared only 18.3 percent population of the State.

Districts which are industrially and agriculturally developed have high concentration of population. While concentration of population is low in those districts which are stagnant in agriculture and which are recorded no significant change in the economy of the rural landscape.

THE MAHARASHTRA  
CONCENTRATION OF POPULATION IN  
RELATION TO AREA (1991)

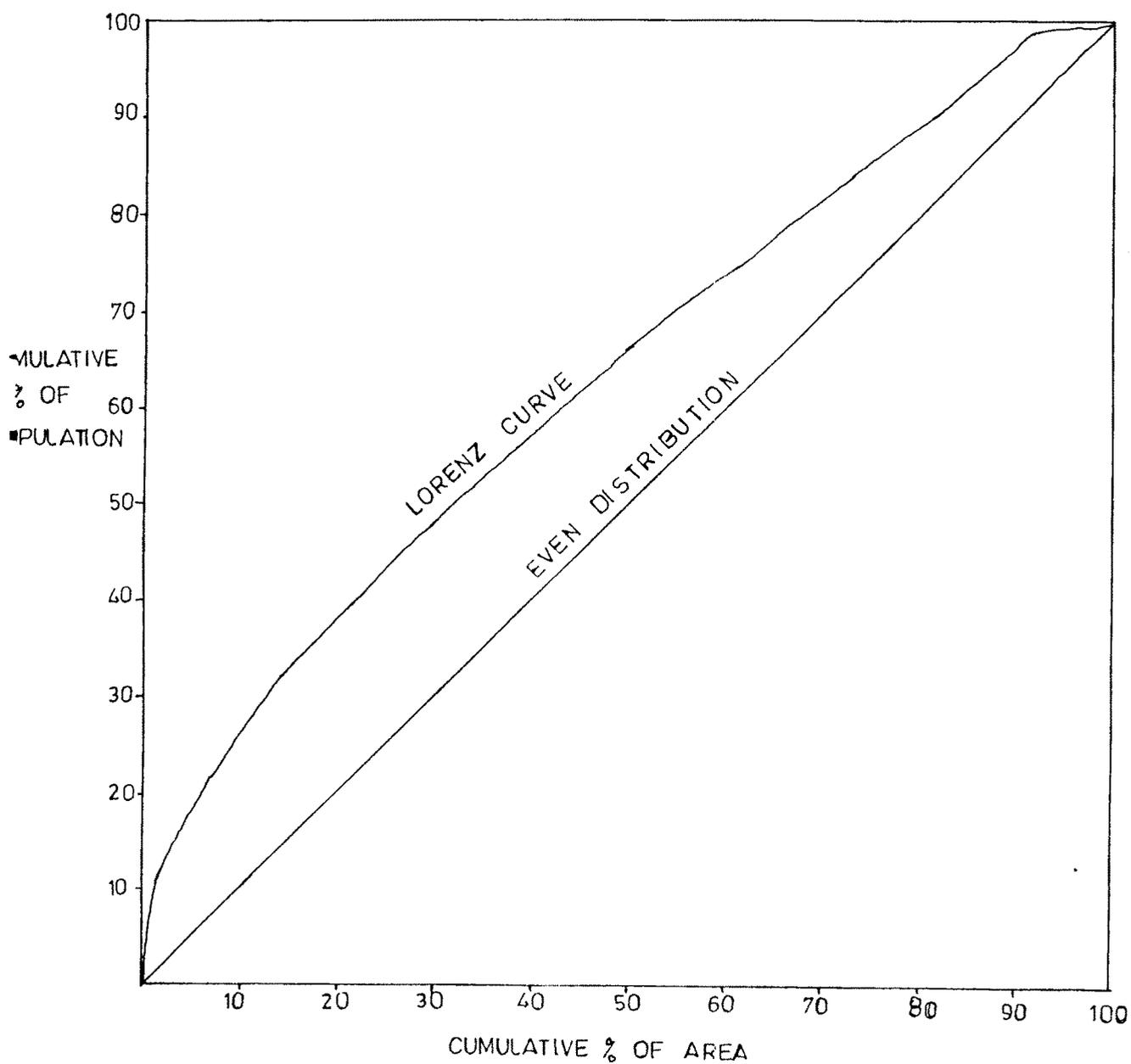


FIG.3.5



### 3.3.0 SPATIAL DISTRIBUTION OF SEX-RATIO (1981 & 1991)

#### 3.3.1 DISTRIBUTION OF SEX-RATIO (1981)

According to 1981 Census out of the total population in the State, 32415000 were males and 30369000 were females.

It is depicted from the Table 3.3 that in 1981 there was districtwise variation in sex-ratio ranging from minimum (772) in Gr.Bombay district to maximum (1258) in Ratnagiri district. It is obvious from the Fig.3.6.A that sex-ratio was high in south Konkan, Satara district and eastern parts of the State.

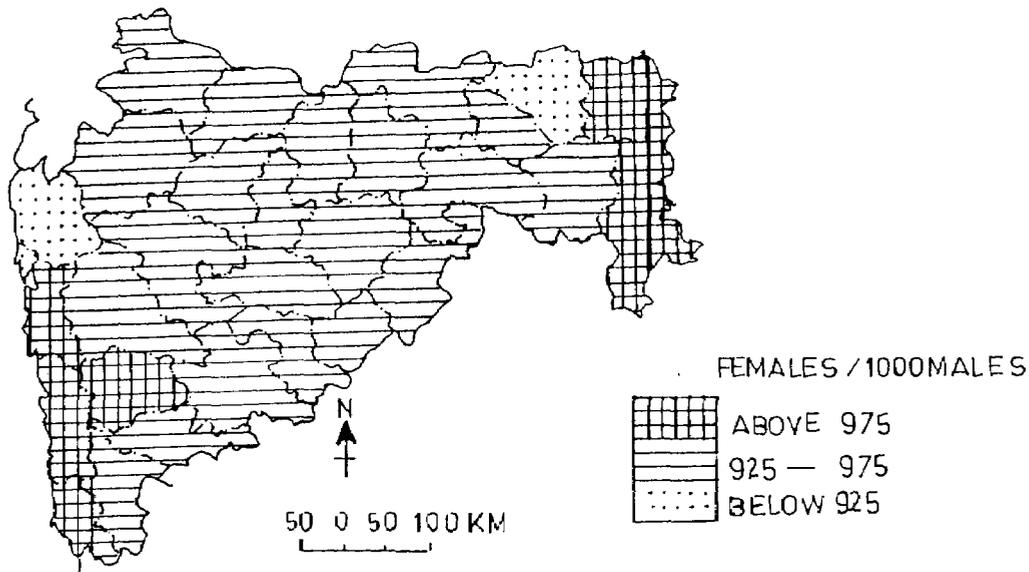
Low sex-ratio was found in Gr.Bombay, Thane and Nagpur districts (Below 925). In twentyone districts of the State sex-ratio was moderate (925 to 975) while in six districts namely Raigarh, Ratnagiri, Sindhudurg, Satara, Bhandara and Gadchiroli sex-ratio was high (Above 975). It is found that high sex-ratio was associated with the industrially and economically backward districts while low sex-ratio was associated with industrially developed districts. It was due to the people, from the backward districts, migrated towards industrially developed districts for getting job alone rather than with their families.

Sex-ratio, for rural areas in the State in 1981 was 987. It was high in south and central Konkan and in north eastern part of the State, while it was low in north eastern and north central part of the State. It may be clear from the

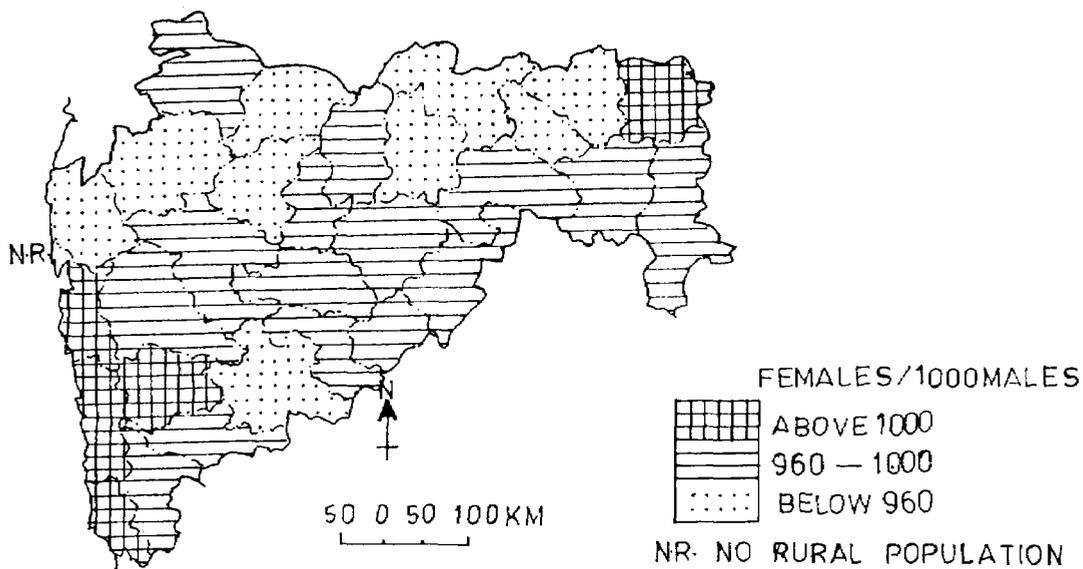
THE MAHARASHTRA

SEX RATIO IN TOTAL-RURAL-URBAN POPULATION  
(1981)

A  
TOTAL



B  
RURAL



C  
URBAN

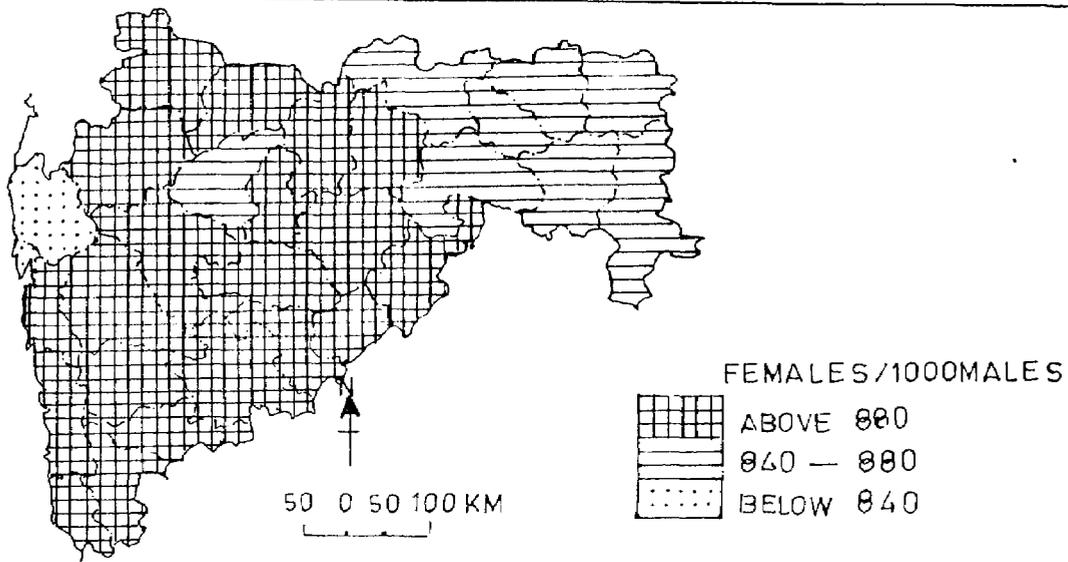


FIG. 3.6

Table 3.3 that the lowest rural sex-ratio (932) was in Thane district and the highest (1289) sex-ratio was in Ratnagiri district.

The low rural sex-ratio (Below 960) was found in Thane, Nashik, Jalgaon, Solapur, Aurangabad, Akola, Amravati, Wardha and Nagpur districts (Fig. 3.6.B). Rural sex-ratio was high (Above 1000) in Raigarh, Ratnagiri, Sindhudurg, Satara and Bhandara districts, due to traditional trend of out migration since many years especially from Konkan districts to Gr.Bombay and from Bhandara to Nagpur. There was also tremendous out migration of males from rural areas of Satara district for the sake of military services.

In urban areas low sex-ratio (Below 840) was found in only two districts viz. Gr.Bombay and Thane. While in twenty districts (Fig.3.6.C) of the State, urban sex-ratio was high (Above 880). It showed the trend of in-migration of male population in Gr.Bombay and Thane districts and out migration of males from above mentioned twenty districts.

### 3.3.2

#### DISTRIBUTION OF SEX-RATIO (1991) :

According to 1991 census out of the total population in the Maharashtra 40686254 are males and 38061961 are females. Sex-ratio in 1991 in the State is 935 females per 1000 males. It ranges from 819 in Gr. Bombay district to 1211 in Ratnagiri district (Table 3.3).

Gr.Bombay, Thane, Aurangabad and Nagpur districts have low sex-ratio (Below 925). In six districts viz. Raigarh Ratnagiri, Sindhudurg, Satara, Bhandara and Gadchiroli

TABLE 3.3

## THE MAHARASHTRA

## SEX-RATIO IN TOTAL, RURAL AND URBAN POPULATION (1981, 1991)

Sr No	District	Total		Urban		Rural	
		1981	1991	1981	1991	1981	1991
1	Gr.Bombay	772	819	772	819	..	..
2	Thane	883	880	825	841	932	954
3	Raigarh	1046	1012	904	905	1071	1037
4	Ratnagiri	1258	1211	979	981	1289	1237
5	Sindhudurg	1205	1140	1047	999	1217	1152
6	Nashik	937	941	889	915	959	956
7	Dhule	966	959	915	916	978	971
8	Jalgaon	950	942	929	922	957	950
9	Ahmednagar	959	952	889	915	970	959
10	Pune	937	936	883	906	988	969
11	Satara	1060	1035	916	926	1085	1052
12	Sangli	967	966	919	932	980	977
13	Solapur	942	936	931	945	946	933
14	Kolhapur	962	966	895	916	986	984
15	Aurangabad	936	924	872	884	958	944
16	Jalna	970	958	947	930	974	964
17	Parbhani	967	952	933	924	976	961
18	Beed	965	947	916	911	975	955
19	Nanded	960	947	918	914	976	957
20	Osmanabad	958	943	933	905	962	950

Sr No	District	Total		Urban		Rural	
		1981	1991	1981	1991	1981	1991
21	Latur	959	944	899	898	971	956
22	Buldhana	957	955	926	932	965	961
23	Akola	948	940	925	926	956	945
24	Amravati	936	938	924	924	941	945
25	Yawatmal	958	949	914	925	966	954
26	Wardha	948	941	931	930	954	945
27	Nagpur	924	923	912	916	940	936
28	Bhandara	997	989	961	952	1003	995
29	Chandrapur	959	948	901	901	972	968
30	Gadchiroli	981	976	1016	910	980	983
	Maharashtra	937	935	850	876	987	975

SOURCE 1) Census of India, 1991, Paper 2, Table 1.

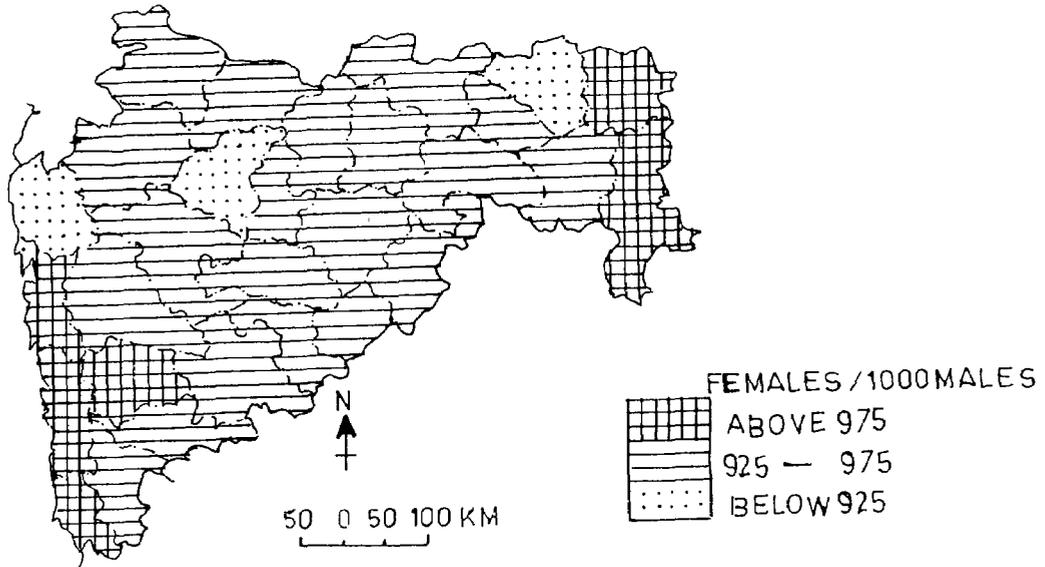
2) Author



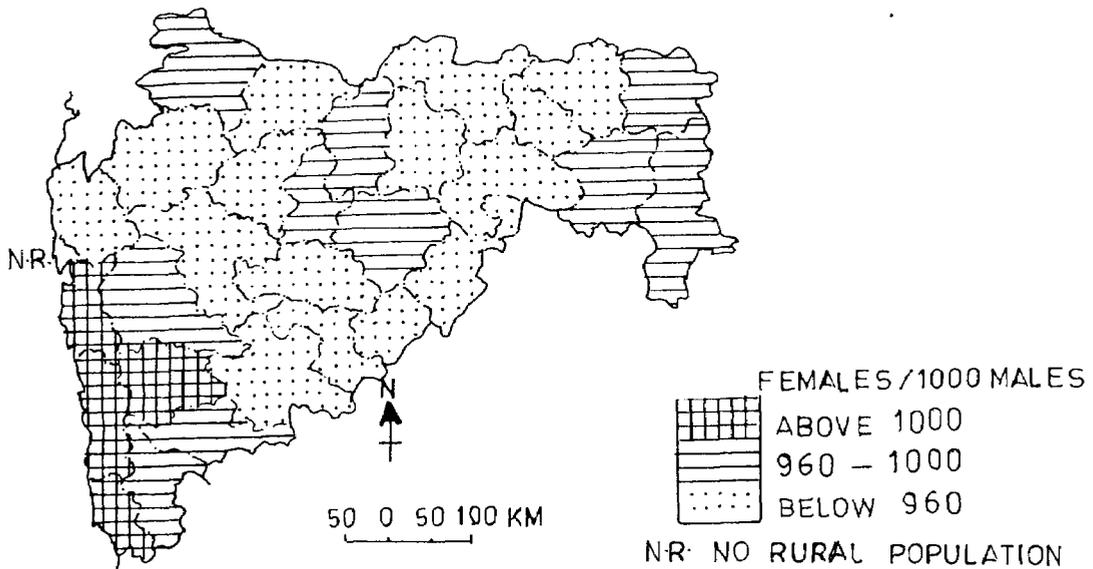
THE MAHARASHTRA

SEX RATIO IN TOTAL RURAL URBAN POPULATION  
(1991)

A  
TOTAL



B  
RURAL



C  
URBAN

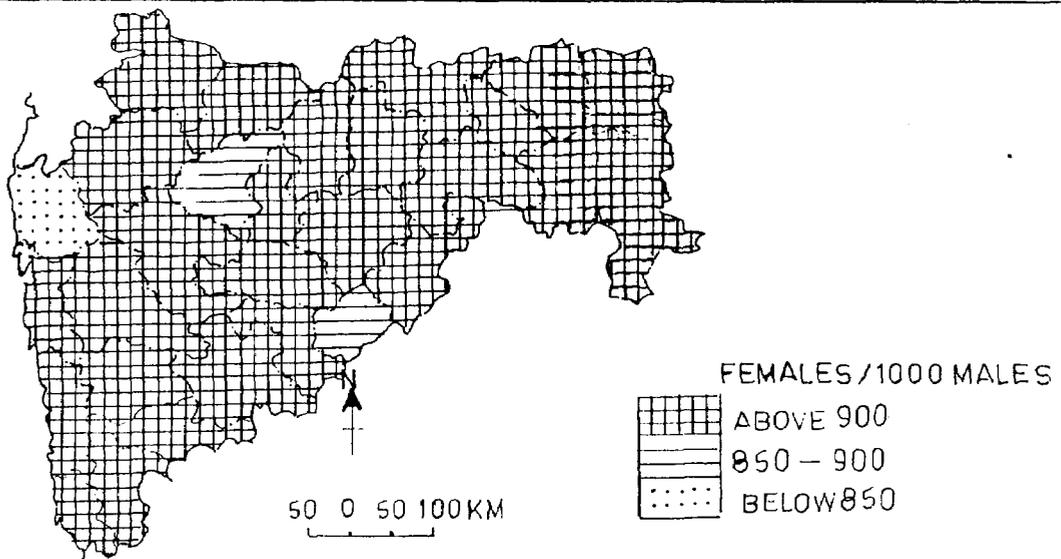


FIG.3.7

sex-ratio is high (Above 975) while in remaining 20 districts it is moderate (925 to 975) (Fig.3.7.A).

Rural sex-ratio in the State is 975 and it varies from 933 in Solapur district to 1237 in Ratnagiri district (Table 3.3).

In fifteen districts (Fig. 3.7.B) rural sex-ratio is low (Below 960) while in four districts viz. Raigarh, Ratnagiri, Sindhudurg and Satara rural sex-ratio is high (Above 1000).

Low urban sex-ratio (Below 850) is found in Gr.Bombay and Thane districts. While in twentysix districts urban sex-ratio is high (Above 900). Especially in Bhandara, Ratnagiri and Sindhudurg districts urban sex-ratio is very high (Table 3.3).

### 3.3.3 CHANGES IN SEX-RATIO (1981 to 1991) :

Table 3.3 shows that the sex-ratio in the State is slightly declined from 937 in 1981 to 935 in 1991. However, there is wide variation in change in sex-ratio at district level. Gr.Bombay district has recorded considerable increase in sex-ratio, i.e. from 772 in 1981 to 819 in 1991. It is due to declining in-migration of male population to this district owing to high land prices, environmental and other social problems and also due to governments restrictions for construction of new industries in this district. Other districts which have recorded an increase in sex-ratio are Nashik, Pune, Kolhapur and Amravati.

It is also evident from the table 3.3 that in Raigarh Ratnagiri, Sindhudurg, Satara, Aurangabad, Jalna, Parbhani,

Beed, Nanded, Latur, Osmanabad and Chandrapur districts sex-ratio during 1981-1991 has declined due to declining the out-migration of male population from these districts owing to formation of agro-based and food processing industries and due to development of small scale industries through M.I.D.C.

#### 3.3.4 SEX-RATIO IN LITERATES (1991) :

As per 1991 Census the average sex-ratio in literates in the State is 634. The sex-ratio in literates ranges from 410 in Jalna district to 900 in Sindhudurg district. The sex-ratio in literates in rural and urban areas of the State is 571 and 706 respectively (Table 3.4). It may be seen from Fig.3.8.A that Konkan, Western Maharashtra and north eastern part of the State have recorded high sex-ratio in literates while central and eastern part have recorded low sex-ratio in literates.

It is also obvious from the Fig.3.8.A that in Dhule, Ahmednagar, Solapur, Aurangabad, Jalna, Parbhani, Beed, Nanded, Osmanabad, Latur, Buldhana, Yawatmal and Gadchiroli districts sex-ratio in literates is low (Below 600).

So far as the sex-ratio in literates in rural areas is concerned, it is found that it is the lowest (348) in rural areas of Jalna district and it is the highest (902) in rural areas of Sindhudurg district (Table 3.4). Eleven districts viz. Dhule, Solapur, Aurangabad, Jalna, Parbhani, Beed, Nanded, Osmanabad, Latur, Buldhana and Gadchiroli have recorded low (Below 500) sex-ratio in literates in rural areas (Fig.3.8.B). The sex-ratio in literates in rural areas

TABLE 3.4

## THE MAHARASHTRA

## SEX-RATIO IN LITERATE &amp; ILLITERATE POPULATION (1991)

Sr No	District	LITERATE			ILLITERATE		
		Total	Rural	Urban	Total	Rural	Urban
1	Gr.Bombay	689	..	689	1279	..	1279
2	Thane	667	576	700	1298	1360	1239
3	Raigarh	703	693	741	1550	1573	1397
4	Ratnagiri	853	854	845	1839	1859	1489
5	Sindhudurg	900	902	880	1889	1905	1607
6	Nashik	627	550	730	1434	1446	1401
7	Dhule	583	530	711	1370	1361	1440
8	Jalgaon	608	564	706	1566	1584	1500
9	Ahmednagar	579	550	700	1567	1572	1524
10	Pune	682	599	745	1515	1579	1419
11	Satara	700	691	750	1719	1740	1517
12	Sangli	640	614	716	1571	1581	1523
13	Solapur	552	500	653	1482	1448	1609
14	Kolhapur	641	603	728	1687	1727	1531
15	Aurangabad	497	398	647	1553	1584	1368
16	Jalna	410	348	641	1535	1550	1430
17	Parbhani	432	362	609	1516	1522	1489
18	Beed	492	416	627	1408	1493	1511
19	Nanded	453	388	620	1479	1477	1488
20	Osmanabad	529	505	628	1478	1473	1516

Sr No	District	LITERATE			ILLITERATE		
		Total	Rural	Urban	Total	Rural	Urban
21	Latur	532	502	621	1500	1499	1505
22	Buldhana	570	531	695	1594	1610	1512
23	Akola	637	582	758	1491	1541	1331
24	Amravati	727	691	787	1356	1369	1360
25	Yawatmal	593	555	729	1460	1458	1473
26	Wardha	721	694	781	1417	1402	1487
27	Nagpur	725	660	763	1387	1359	1395
28	Bhandara	630	608	748	1712	1712	1705
29	Chandrapur	612	570	693	1466	1475	1431
30	Gadchiroli	494	471	645	1400	1392	1554
	Maharashtra	634	571	706	1485	1527	1380

SOURCE Census of India, 1991, Paper 2, Table 1.

2) Author



of the above districts is below the State's average (571) while in ten districts namely Raigarh, Ratnagiri, Sindhudurg, Satara, Sangli, Kolhapur, Amravati, Wardha, Nagpur and Bhandara sex-ratio in literates in rural areas is found high (Above 600).

Sex-ratio in literates in urban areas ranges from minimum (609) in Parbhani district to maximum (880) in Sindhudurg district (Table 3.4).

Low sex-ratio in literates in urban areas (Below 675) is found in Solapur, Aurangabad, Jalna, Parbhani, Beed, Nanded, Osmanabad, Latur and Gadchiroli districts, while thirteen districts have recorded high (Above 725) sex-ratio in literates in urban areas (Fig. 3.8.C).

It is clear from the above analysis that districts which have large share of tribal population and which are economically backward have low sex-ratio in literates. The poverty of the people and the traditional prejudice among the rural folks against sending girls to schools in economically backward rural areas resulted in low sex-ratio in literates. While agriculturally prosperous districts with adequate educational facilities and modern outlook of society lead to have high sex-ratio amongst the literates.

Shadow effect of Bombay and Christian society from Goa and a great deal of awareness among the people about their children, both male and female, literacy plays an important role both in rural as well as urban areas of Raigarh, Ratnagiri and Sindhudurg districts for high sex-ratio in literates.



THE MAHARASHTRA

SEX RATIO IN LITERATE POPULATION  
(1991)

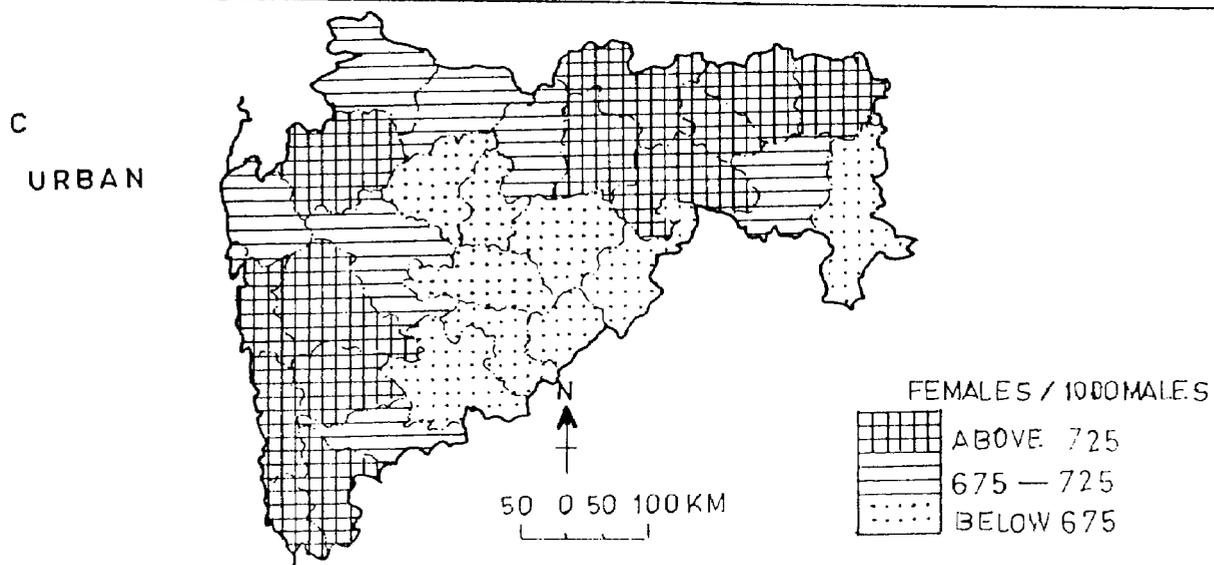
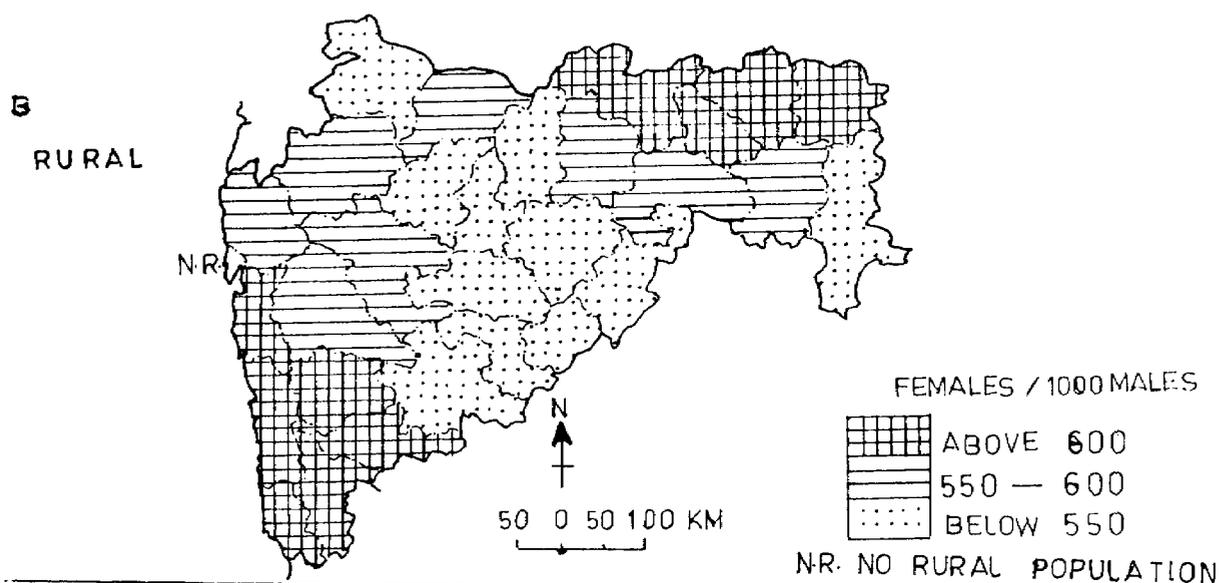
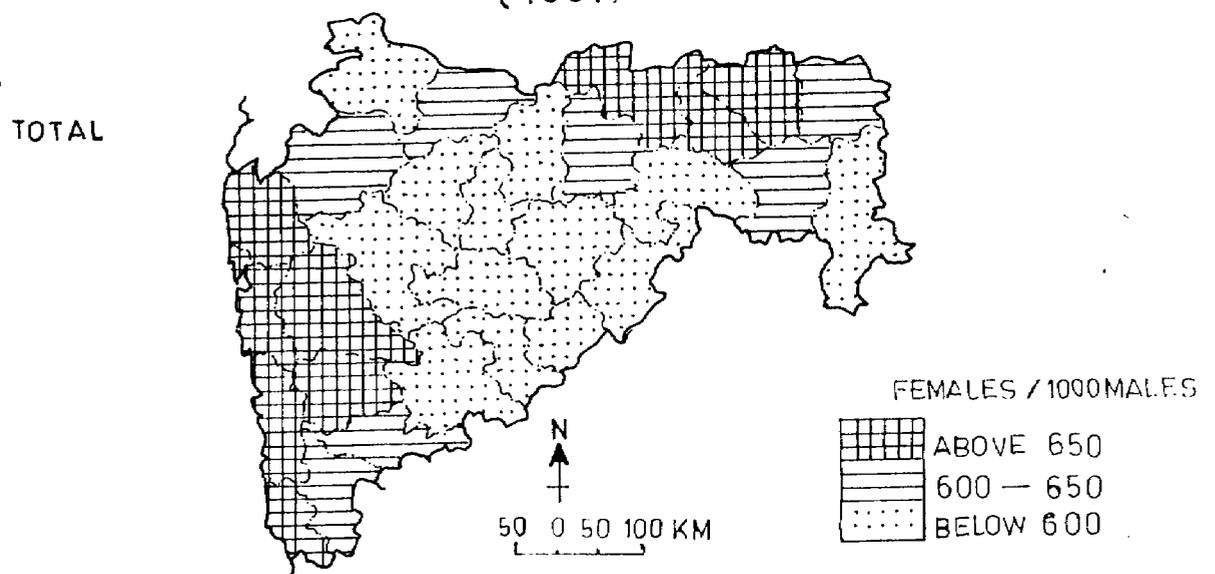


FIG. 3-8

## 3.3.5

SEX-RATIO IN ILLITERATES (1991) :

Average sex-ratio in illiterates in the State is 1485, while it is 1527 and 1380 in rural and urban areas respectively.

So far as the sex-ratio in illiterates is concerned it is found that it is the lowest (1279) in Gr.Bombay district and is the highest (1889) in Sindhudurg district. Nine districts viz. Gr.Bombay, Thane, Nashik, Dhule, Beed, Amravati, Wardha, Nagpur and Gadchiroli have recorded low (Below 1450) sex-ratio in illiterates (Fig.3.9.A).

Fourteen districts have recorded high sex-ratio (Above 1500) in illiterates.

Sex-ratio in illiterates in rural areas ranges in between 1360 in Thane district and 1905 in Sindhudurg district. Rural areas of Thane, Nashik, Dhule, Solapur, Beed, Nanded, Osmanabad, Latur, Amravati, Yawatmal, Wardha, Nagpur, Chandrapur and Gadchiroli districts have recorded low sex-ratio (Below 1500) in illiterates. And rural areas of twelve districts viz. Raigarh, Ratnagiri, Sindhudurg, Jalgaon, Ahmednagar, Pune, Satara, Sangli, Kolhapur, Aurangabad, Parbhani and Beed have recorded high sex-ratio (Above 1550) in illiterates (Fig.3.9.B).

Sex-ratio in illiterates in urban areas in the lowest (1239) in Thane district and the highest (1705) in Bhandara district. Urban areas of three districts namely Gr.Bombay, Thane and Akola have recorded low sex-ratio (Below 1350) in illiterates, while urban areas of twenty three districts have

THE MAHARASHTRA

SEX RATIO IN ILLITERATE POPULATION  
(1991)

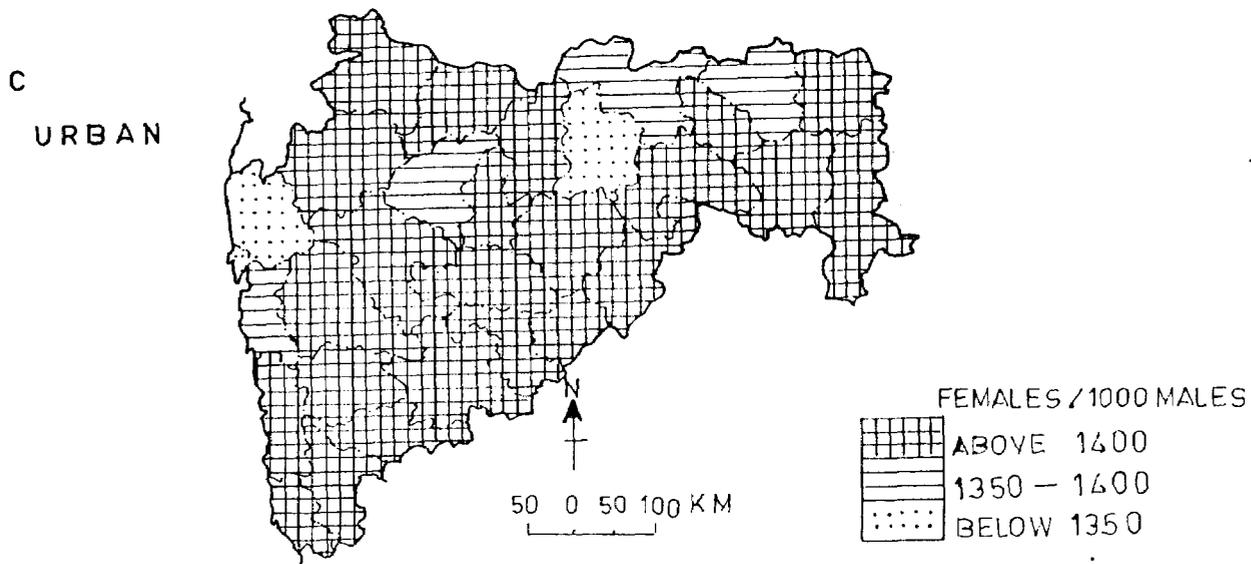
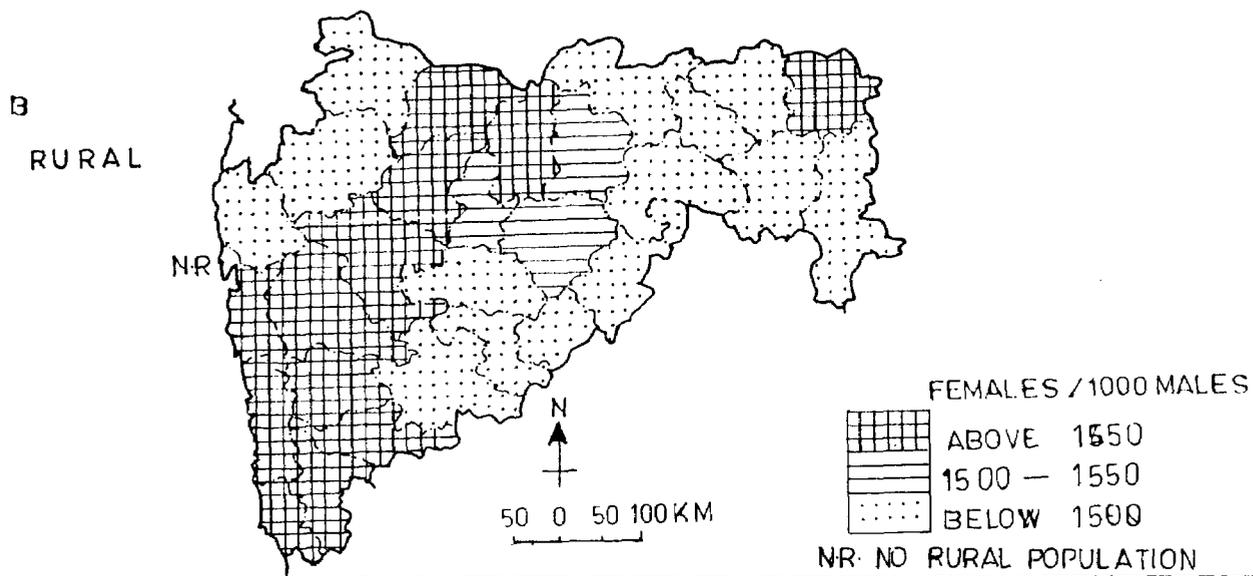
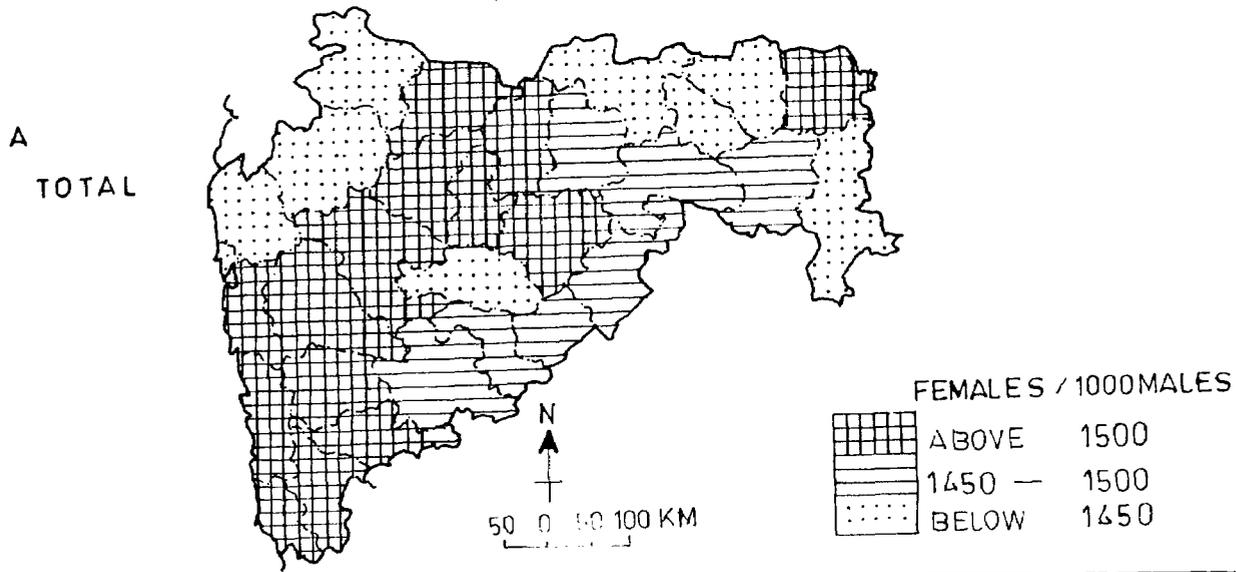


FIG. 3.9

recorded high sex ratio (Above 1400) in illiterates (Fig.3.9.C).

It is found that more urbanized districts have low sex-ratio in illiterates while economically backward and agricultural districts have high sex-ratio in illiterates.

### 3.3.6 SEX-RATIO IN WORKING POPULATION (1991)

As per 1991 Census, the sex-ratio in working population in the State is 489. While it is 685 and 184 in rural and urban areas respectively (Table 3.5).

The average sex-ratio in working population ranges from minimum (163) in Gr.Bombay district to maximum (850) in Ratnagiri district. It is obvious from the Fig.3.10.A that Gr.Bombay, Thane, Pune, Sangli, Kolhapur and Nagpur districts have recorded low sex-ratio (Below 450) in working population owing to the male immigration in these industrially developed districts. High sex-ratio (Above 500) in working population is recorded in twentythree districts owing to the male out-migration from these comparatively industrially backward districts.

Lowest sex-ratio in working population in rural areas is found in Sangli district (432) and the highest in Ratnagiri district (887). Low sex-ratio (Below 675) amongst the working population is found in rural areas of Thane, Sangli, Kolhapur, Solapur, Sindhudurg, Dhule, Pune, Satara, Nanded, Osmanabad and Amravati districts. While rural areas of Ratnagiri, Nashik, Aurangabad, Jalna, Parbhani, Beed, Buldhana, Akola, Yawatmal, Bhandara and Chandrapur districts

TABLE 3.5

## THE MAHARASHTRA

## SEX-RATIO IN WORKING &amp; NON WORKING POPULATION (1991)

Sr No	District	Working Population			Non working Population		
		Total	Rural	Urban	Total	Rural	Urban
1	Gr. Bombay	163	..	163	1595	..	1595
2	Thane	298	598	151	1549	1341	1661
3	Raigarh	595	693	188	1427	1373	1671
4	Ratnagiri	850	887	228	1511	1526	1643
5	Sindhudurg	634	667	250	1570	1564	1631
6	Nashik	598	881	196	1287	1125	1546
7	Dhule	576	632	174	1378	1343	1486
8	Jalgaon	572	703	189	1306	1207	1539
9	Ahmednagar	646	716	263	1264	1211	1526
10	Pune	430	647	214	1448	1314	1568
11	Satara	535	583	217	1497	1491	1529
12	Sangli	382	432	205	1595	1585	1626
13	Solapur	480	547	287	1405	1363	1493
14	Kolhapur	447	557	143	1533	1460	1721
15	Aurangabad	586	760	194	1243	1133	1391
16	Jalna	687	778	189	1242	1168	1559
17	Parbhani	621	725	199	1294	1224	1492
18	Beed	655	742	201	1229	1172	1451
19	Nanded	588	675	219	1292	1248	1423
20	Osmanabad	594	648	243	1298	1274	1410

Sr No	District	Working Population			Non working Population		
		Total	Rural	Urban	Total	Rural	Urban
21	Latur	574	670	143	1293	1245	1448
22	Buldhana	711	819	247	1210	1117	1524
23	Akola	599	742	196	1289	1170	1550
24	Amravati	506	634	207	1403	1314	1555
25	Yawatmal	678	762	212	1194	1172	1520
26	Wardha	590	709	198	1317	1224	1530
27	Nagpur	400	690	193	1421	1221	1527
28	Bhandara	775	833	339	1211	1171	1435
29	Chandrapur	594	735	183	1324	1240	1500
30	Gadchiroli	654	679	361	1361	1356	1403
	Maharashtra	489	685	184	1399	1285	1566

SOURCE 1) Census of India, 1991, Series 14, Paper 3.

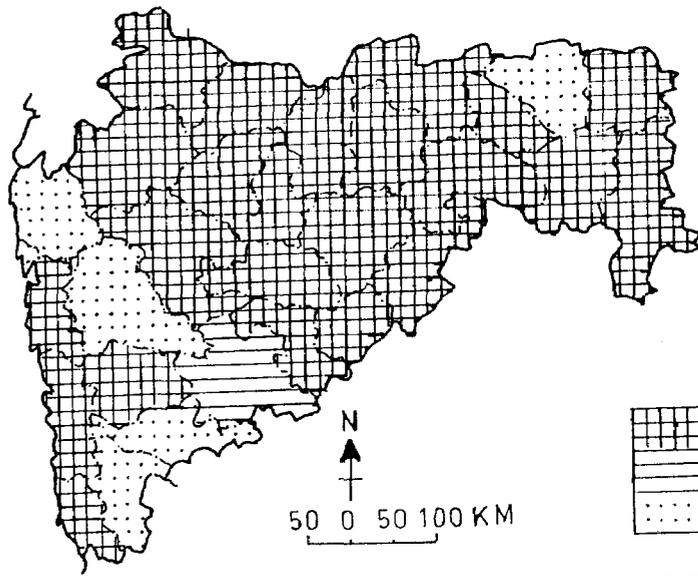
2) Author



THE MAHARASHTRA

SEX RATIO IN WORKING POPULATION (1991)

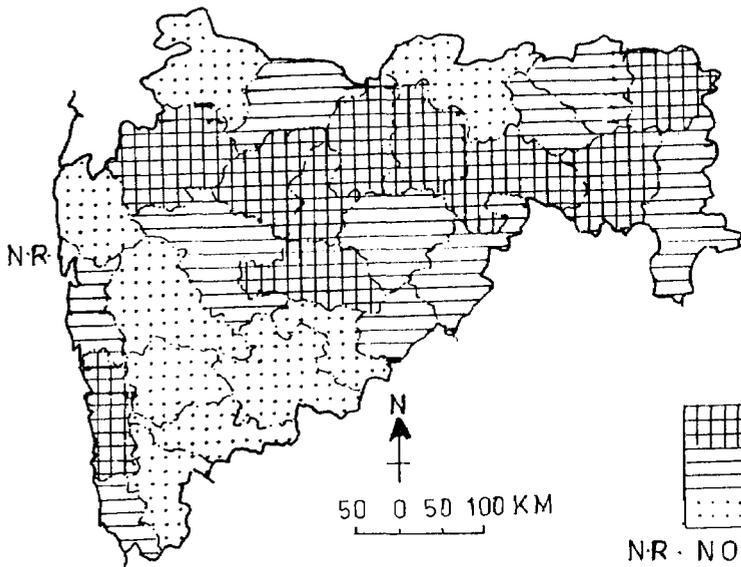
A  
TOTAL



FEMALES / 1000 MALES

	ABOVE 500
	450 - 500
	BELOW 450

B  
RURAL

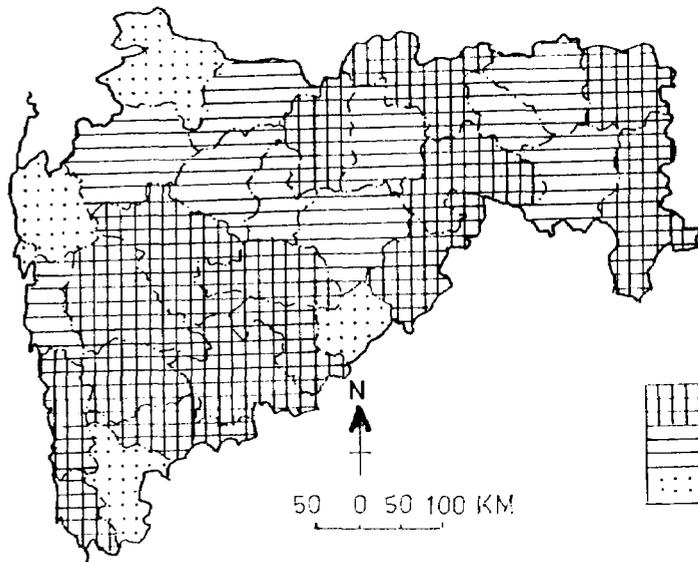


FEMALES / 1000 MALES

	ABOVE 725
	650 - 725
	BELOW 650

NR - NO RURAL POPULATION

C  
URBAN



FEMALES / 1000 MALES

	ABOVE 200
	175 - 200
	BELOW 175

FIG-3-10

have recorded high sex-ratio (Above 725) amongst working population (Fig.3.10.B).

Sex-ratio in working population in urban areas ranges from 143 in Kolhapur and Latur districts to 361 in Gadchiroli district.

Low sex-ratio in working population (Below 175) in urban areas is found in Gr.Bombay, Thane, Dhule, Kolhapur and Latur districts. While high sex-ratio in working population (Above 200) in urban areas is found in fifteen districts (Fig.3.10.C).

### 3.3.7

#### SEX-RATIO IN NON WORKING POPULATION (1991) :

According to 1991's Census sex-ratio in non-working population in the State is 1399, while it is 1285 and 1566 in rural and urban areas respectively (Table 3.5).

Gr.Bombay, Thane, Pune, Satara, Sangli and Kolhapur districts have high sex-ratio in non-working population (Above 1425) due to high urbanisation. Other districts which have recorded high sex-ratio in non-working population are Raigarh, Ratnagiri and Sindhudurg. In sixteen districts sex-ratio in non-working population is low (Below 1275) due to low urbanisation (Fig.3.11.A).

Sex-ratio in non-working population in rural areas ranges in between 1117 in Buldhana district and 1585 in Sangli district. Seventeen districts have recorded low sex-ratio (Below 1275) in non-working population. While ten districts viz. Thane, Raigarh, Ratnagiri, Sindhudurg, Dhule, Satara, Sangli, Solapur, Kolhapur and Gadchiroli have

THE MAHARASHTRA

SEX RATIO IN NON WORKING POPULATION  
(1991)

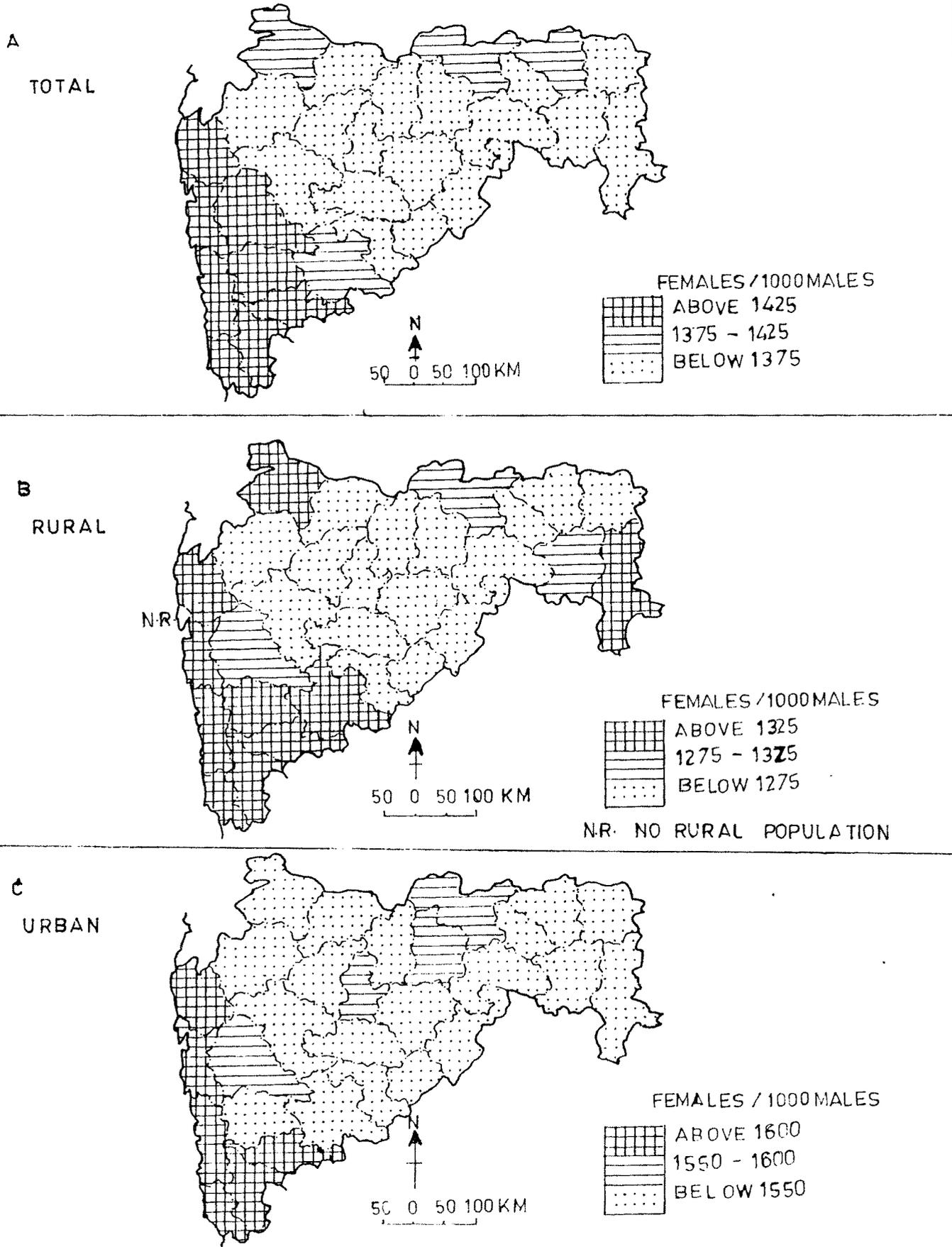


FIG. 3.11

recorded high sex-ratio (Above 1325) in non-working population (Fig.3.11.B).

So far as sex-ratio in non-working population in urban areas is concerned, it is found that it is the lowest (1391) in Aurangabad district and the highest (1721) in Kolhapur district. Low sex-ratio in non-working population (Below 1550) in urban areas is found in nineteen districts (Fig.3.11.C) and high sex-ratio in non-working population (Above 1600) in urban areas is found in six districts viz. Thane, Raigarh, Ratnagiri, Sindhudurg, Sangli and Kolhapur.



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