CHAPTER - II
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-:-   <u>POPULATION GROWTH AND DISTRIBUTION</u>   -:-

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2.1   Population growth

   2.1.1 Population growth rate - 1981

   2.1.2 Changes in population growth
         rate

2.2   Distribution of population

   2.2.1 Population distribution - 1981

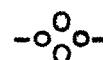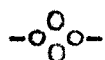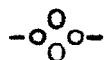   2.2.2 Changes in population
         distribution

2.3   Density of population

   2.3.1 Population density - 1981

   2.3.2 Changes in population density

         Summary

         References

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Population is an important factor that plays a vital role in the country's economic development. But, when population increases alarmingly it becomes the problem of the country (Bhende and Kanitkar,1978). The population of India has been increasing very fast, which creates so many problems like - hunger, illiteracy, low standard of living, unemployment etc.

2.1 POPULATION GROWTH :

The population growth is affected by three dominant factors. They are birth rate, death rate and migration. The death rate is controlled by providing good medical facilities with the invention and wide spread diffusion of life saving drugs and with further improvement of means of transport, the mortality has declining trend (Gill,1980).

Growth in population may be studied in terms of the differences between population at present and population at base year. A study of absolute and percentage changes of population in Khanapur taluka is given in Table 2.1. The absolute population of the Khanapur taluka was 132,045 in 1951. It increased from 1951 to 1981 by 75,266 i.e. nearly doubled in 30 years registering an overall increase of 43.08 percent. There is absolute increase in population from 1961 to 1981, but growth varies from decade to decade. From year 1951 to 1961 the population increased by 28,000 that was 19.17 percent. It increased by 26,406 during 1961 to 1971, the present growth is 15.14. And the absolute population of Khanapur

taluka was 217,712 in 1981. It increased by 30,860 from 1971 and the percent growth is 15.28.

TABLE 2.1 : Growth of population and Decadal variation in Khanapur taluka (1951-1981).

Sr. No.	Year	Population	Decadal variation	Percentage variation
1	1951	132,045	-	-
2	1961	160,045	28,000	19.17
3	1971	186,452	26,406	15.24
4	1981	217,312	30,860	15.28

SOURCE : District census handbook of Sangli District.

2.1.1 Population Growth Rate - 1981 :

This general picture could not show the details of population growth in taluka. So villagewise population growth rate is calculated by Gibb's method. The high growth rate category is observed in six villages. These are Nagewadi, Yede, Chikhali, Shivani, Gardi and Hanmantvadi. But the highest growth rate is observed only at Nagewadi (39%). Moderate population growth rate is observed in 27 villages and low growth rate is found in 64 villages of the taluka. The maximum number of villages i.e. 64 villages have low growth of population.

2.1.2 <u>Changes in population growth rate</u> :

Growth rate changes can be studied by difference between past and present growth rates. Fig.2.1 shows spatio-temporal patterns of population growth rate in Khanapur taluka for the years 1961, 1971 and 1981. It reveals striking spatial variations in growth rate of population. In this study area the declining trend in growth rate is due to literacy. Literate population controls the family size and try to reach higher standard of living. It understands merits of small family. From 1961 to 1971 the growth rate decreased by 3.93 percent, but it increased by 0.14 percent from 1971 to 1981.

Changes in population growth for the villages is also computed. This shows that in year 1961 there were 4 villages having higher growth rate, they are Vihapur, Amarapur, Waluj and Kusbavade. Moderate growth rate is observed in 55 villages and remaining 37 villages have low growth rate. This picture changed in 1971 as high growth rate is noted in 3 villages.centers. They are Hingangadé, Kusbavade and Vita. The moderate growth rate is observed in 35 villages and low growth rate is found in 59 villages. The remarkable changes are observed at some villages in which Hingangade and Kusbavade can be included. Other villages have registered slight changes in growth rate of population.

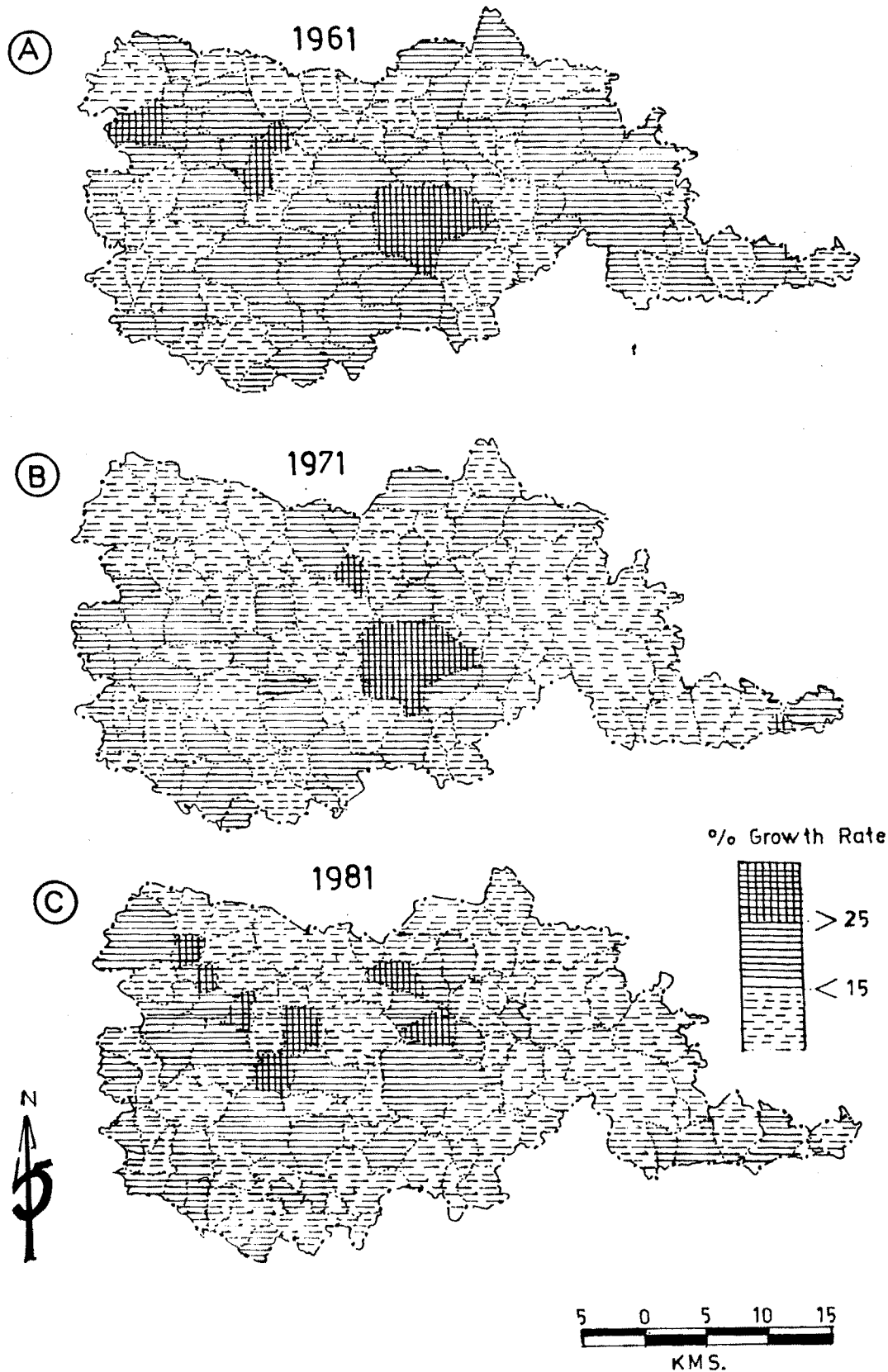# KHANAPUR TALUKA

POPULATION GROWTH RATE

(A) 1961

(B) 1971

(C) 1981

% Growth Rate

> 25

< 15

N

5 0 5 10 15
KMS.

FIG 2·1

2.2 DISTRIBUTION OF POPULATION :

The study of population distribution is useful to understand the regions of high concentration and sparce concentration of population and the facilities that are needed. The Khanapur taluka of Sangli district has sparce population and it varies from village to village. The distribution of population is affected by historical, edaphic, economic and institutional factors. The population concentration is affected by socio-economic facilities (Betal,1976). As the taluka suffers from a deficit of both rainfall and fresh ground water resources, its large part of population has to live with a prepetual fear of drought.
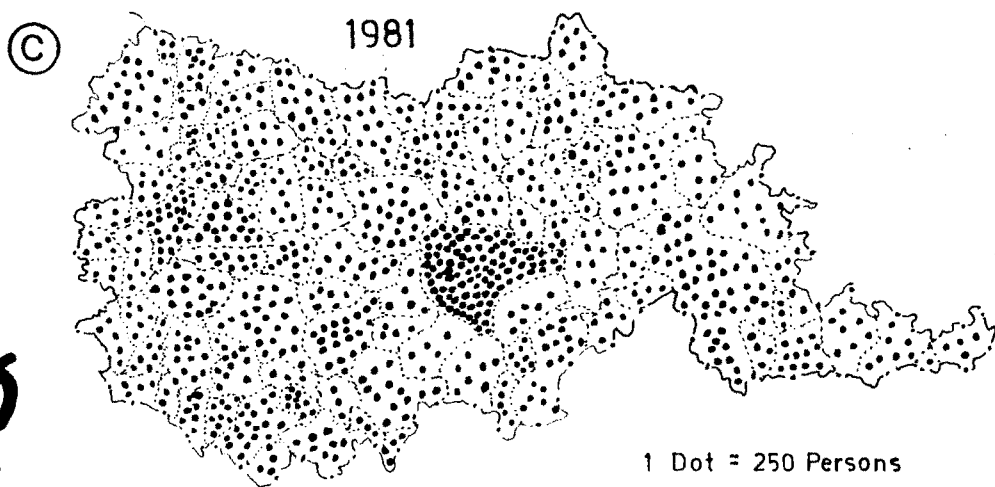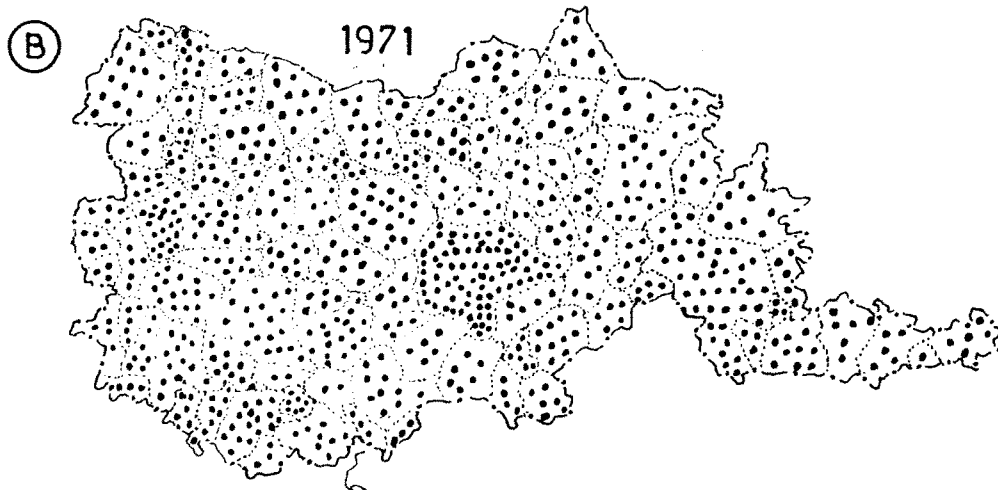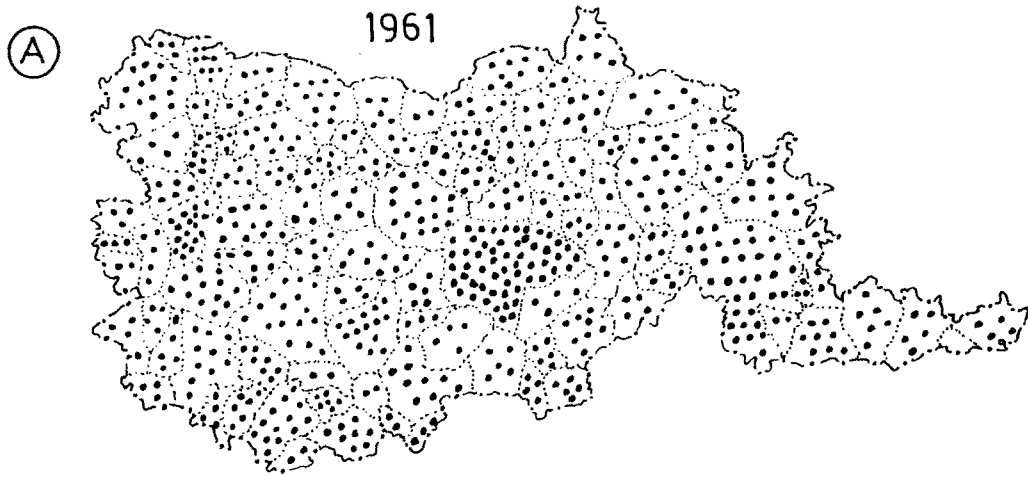
2.2.1 Population Distribution - 1981 :

Maximum population is concentrated in western part of taluka as compared to eastern. The western part of the taluka gets sufficient rainfall (55 cms) and there is more possibility of rainfall than eastern part. So the agricultural activities are well developed in this area. The agricultural productivity is also high and so more population is concentrated in this part of the taluka (Fig.2.2).

There are two centres having population more than 10,000. They are Vita (24,081) and Khanapur (11,681). The availability of facilities are responsible for concentration of population at these centres. Further there are seven

KHANAPUR TALUKA

DISTRIBUTION OF POPULATION

A — 1961

B — 1971

C — 1981

1 Dot = 250 Persons

N

5 0 5 10 15
KMS.

FIG·2·2

centres having population ranging from 5,000 to 10,000. They are Nevari (5,464), Lengare (5,518), Kadegaon (6,339), Wangi (5,452) and Bhaluwani (5,073). There are six villages which have population between 3,000 to 5,000. They are Shalgaon, Chinchani-Wangi, Devarashtre, Kadepur and Tadsar. The remaining villages are having the population below 3,000.

2.2.2 Changes in population distribution :

In the year 1961 only one centre, that is Vita had the population of 13,891 and another centre Khanapur had 8,836. Seven villages had population in between 3,000 to 5,000. They were Bhalvani, Devarashtre, Kadegaon, Lengare, Nevari, Shalgaon and Wangi and the rest of the villages had the population below 3,000 each. This picture changed in 1971. In that year two centres Vita and Khanapur had population above 10,000. And only one village Kadegaon had population between 5,000 to 10,000. Nine villages had population between 3,000 to 5,000 each. They were Bhalvani, Chinchani, Wangi, Devarashtre, Kadepur, Lengare, Nevari, Shalgaon, Tadsar and Wangi. The remaining villages had population below 3,000. Lowest population is observed at Kushavade (172) in 1981 which has increased from 95 in 1961 and 157 in 1971.

2.3 DENSITY OF POPULATION :

The term density of population implies average number of persons living per square kilometre. The density of population is affected by several factors like relief, soil, climate,

economic conditions etc. More than 60 percent area of Khanapur taluka is covered by dark brown soil and remaining area is covered by the black soil. Black soil is observed in drainage basin of Yerala river. This taluka belongs to predominantly drought prone area; so deficiency in rainfall is characteristics of the taluka. The average rainfall ranges from 50 to 100 cms, but it also varies from area to area and year to year. This is one of the economically backward talukas of Sangli district. Agriculture is the main occupation and it depends upon monsoon and there is little irrigation development. When rainfall is sufficient the agricultural production is sufficient and when rainfall is less the drought condition prevails. So the yield per hectare is low. Industrial development is also not observed in taluka, so per capita income is very low. The social facilities like education, medical, communication etc. are not developed. Hence, this taluka has remained backward. These physical and socio-economic factors affect the density of population. The decadal density of population of Khanapur taluka (according to census) is shown in Table 2.2.

TABLE 2.2 : Density of population in Khanapur taluka.

Year	Area in sq.km.	Total population	Population per sq.km.
1951	1,326	132,045	099
1961	1,326	160,045	120
1971	1,326	186,452	140
1981	1,326	217,312	164

SOURCE : Sangli District Census Handbook.

2.3.1 <u>Population Density - 1981</u> :

The average density of taluka is 164 persons per sq.
kilometer. This average density does not give real picture
of density variations. Therefore, villagewise density is
calculated. The taluka reveals striking spatial variations
in density of rural population and as such three regions can
be distinguished.

The map (Fig.2.3) shows the picture of arithmetical
sense of differences in population density. The density of
population in Khanapur taluka is not same every-where. In
the year 1981 highest density of population is noted at Sulta-
ngade i.e. 536.43 persons per sq.km. This is a small village
which is densely populated. Some other centres of high density
of population are Saspade, Nimsod, Karanje, Ambak, Ramapur,
Kadegaon and Vita. These eight centres have high density of
population. These eight centres cover 18.72 percent area of
the taluka. Out of these only Vita and Kadegaon are big and
socio-economically developed centres. These two centres are
the market centres of taluka. So population is attracted
towards them. Moderate density of population is found at 39
villages in western part of taluka. Low density of population
is observed in the villages in eastern Khanapur taluka. There
are 50 villages having low density of population. These 50
villages contain 36.1 percent population and 50.84 percent area
of Khanapur taluka. Low density is predominantly found in
drought prone area of taluka. In this area agriculture is
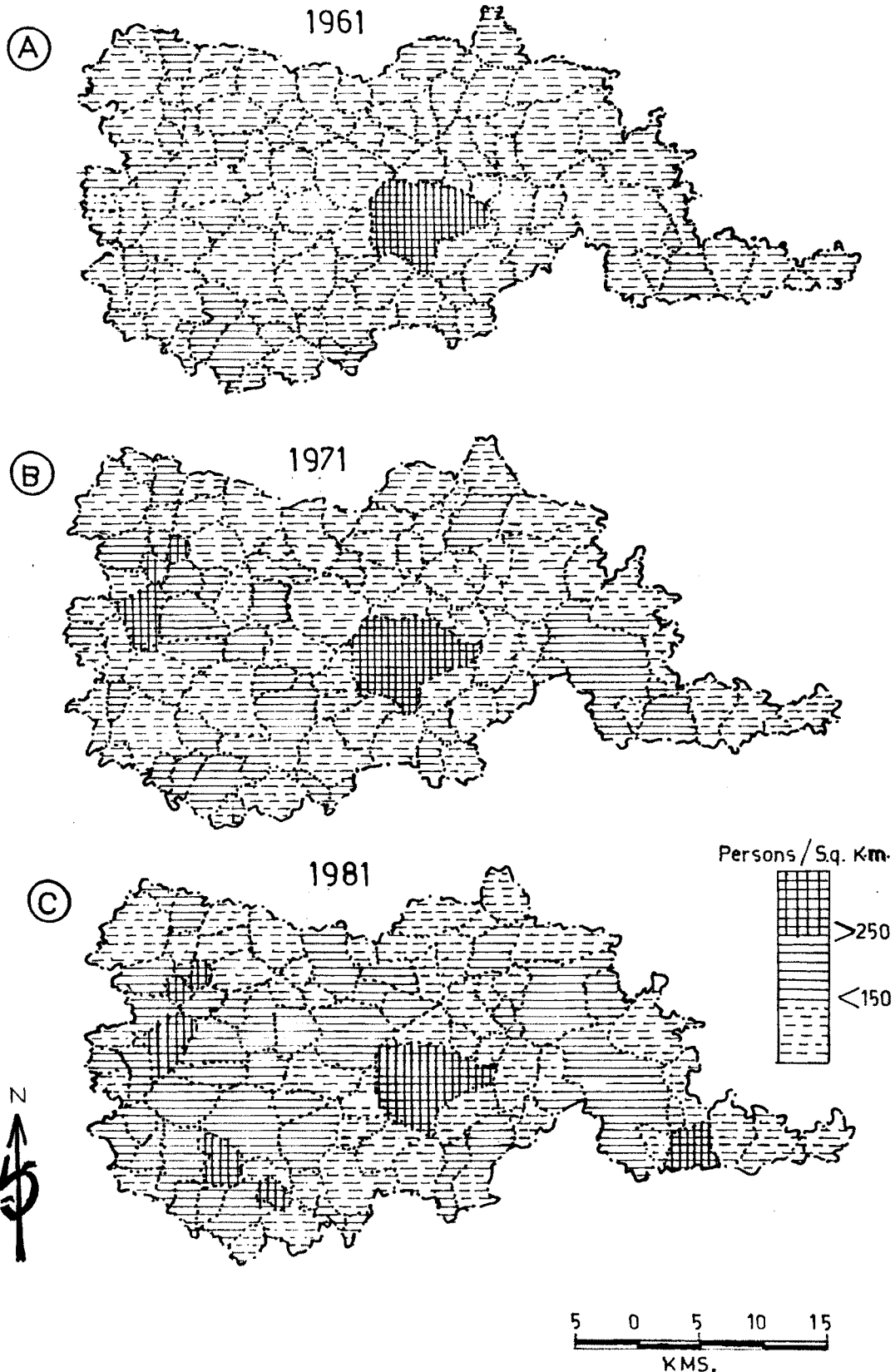
KHANAPUR TALUKA
POPULATION DENSITY

FIG. 2.3

dominant activity. This occupation is also not much developed because of unreliable monsoon. In Khanapur taluka 50% villages have low density, and very low portion of taluka is covered by high density. The density of Khanapur talukas is below the average density of Maharashtra (204 persons).

2.3.2 Changes in population density :

The changes in population density are observed from 1961 to 1981. According to the 1951 census, Khanapur taluka had an area of 1,325 sq.km and population 132,045 with 99 persons per sq.kilometer. This, however, has undergone a change in later years. The density went upto 120 persons per sq.km in 1961 and to 140 persons in 1971 and 164 persons per sq.km in 1981. Thus, over three decades there was an increase of 65 persons per sq.km. There appears some regularity in increase in density between 1961 to 1981. It was 21 persons per sq.km between 1951 to 1961, 20 persons between 1961 to 1971 and 24 persons in between 1971 to 1981. There is nearly an increase of 22 persons per sq.km in each decade. This general picture of density can not give accurate presentation of density of taluka. For this purpose the villagewise density is needed for the accurate change in density.

The changes are observed in all categories of density divisions. In the year 1951 only four villages had high density. This picture of high density was stable upto 1971. The Saspade, Nimsod, Sultangade, and Vita were the centres that had high

density of population. Sultangade had highest density of population (524.03 persons per sq.km). Nimsod and Saspade had high density because of small area as compared to population. In 1961, 10 percent population was observed in high density centres which covered 4.92 percent area of taluka. This percentage increased to 14.13 percent population and 6.25 percent area in 1971 and to 18.72 percent population and 8.3 percent area in 1981. The high density area increased by 3.41 percent and the population increased by 8.72 percent from 1961 to 1981.

Moderate density of population had changed very fast. In 1961 there was 15.02 percent population that lived in moderate density places which covered 10.18 percent area of taluka. This picture changed in 1971 as 31.04 percent population lived in this category of density which accounted for 24.46 percent of population. In the year 1981, 45.36 percent population and 40.83 percent area of taluka was covered by moderate density.

In year 1961 it is observed that 75 percent population lived in low density category which covered 85 percent area of taluka. This picture changed in 1971 as 54.77 percent population and 69.01 percent area had low density of population and in the year 1981, 55.1 percent population and 5.04 percent area had low density of population. The population in low density area decreased by 38.90 percent and the area decreased by 34.5 percent from 1961 to 1981.

The number of villages in low density category also decreased from 1961 to 1981. In year 1961, 79 villages were in low density category. In 1971 there were 65 villages and in 1981, 50 villages had low density.

SUMMARY :

The growth rate of population of Khanapur taluka is changed from census to census. The growth rate changes are sharp upto 1971, but after this year these are not so. From 1961 to 1981 growth rate decreased by 3.93 percent and from 1971 to 1981 showed slight increase of 0.04 percent. The urban change in general has occurred very rapid as compared to rural area. But, in study area Vita is the only place where the growth rate is declining. In 1961 growth rate was 33.10 percent, it decreased to 25.81 percent in 1971 and to 22.23 percent in 1981.

The distribution of population is affected by physiography and the socio-economic facilities of the region. Hence, the greater concentration is observed in western part of the taluka as compared to eastern part. The density of population depends upon the prosperity of area. Some centres have high density because of less amount of area as compared to population. Some centres like Vita, Kadegaon have attracted the population by their socio-economic development and employment opportunity. The overall picture shows that the population density in the categories of high and moderate densities has increased from 1961 to 1981, but low density areas have recorded the decrease.

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