CHAPTER III.
GROWTH OF POPULATION
(General and Rural)

Among the various components of population which reflect the growth of a region, the increase in the number of people is one of the most important. The dynamics of population, though complex, gives an insight, among other things, into the nature of concomitant consequences in other population attributes. The rapid growth of population of the Inter-State Chandigarh Region is the net outcome of mobility (in and out migration), fertility (birth rate) and mortality (death rate). The objective in this chapter is to study the overall growth of population in its temporal perspective, the rural-urban differential and the spatial patterns of growth of rural population.

POPULATION GROWTH IN THE REGION: GENERAL.

The most outstanding feature of the population of the region is its speedy growth during 1951-71 leading to a staggering increase in absolute numbers. Table 3.1 shows that the growth of population in the Inter-State Chandigarh Region has been faster when compared to the states of Punjab, Haryana and the country as a whole. The population of the region in 1951 was 365,713 with an arithmetic density of 145 persons per sq km. By 1971 it rose to a total of 866,270 people having a density of 345 persons per sq km.
### TABLE 3.1

**INTER-STATE CHANDIGARH REGION**

**GROWTH OF POPULATION 1951-71**

<table>
<thead>
<tr>
<th>Region/State/Country</th>
<th>1951 Total population (365,713)</th>
<th>1961 Total population (598,657)</th>
<th>1971 Total population (866,270)</th>
<th>Difference in population 1951-71 (500,557)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.S.C.R.*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punjab</td>
<td>9,157,255</td>
<td>11,135,069</td>
<td>13,551,060</td>
<td>4,393,805</td>
</tr>
<tr>
<td>Haryana</td>
<td>5,673,614</td>
<td>7,590,543</td>
<td>10,036,808</td>
<td>4,363,194</td>
</tr>
<tr>
<td>India</td>
<td>361,129,622</td>
<td>439,223,508</td>
<td>548,159,652</td>
<td>187,030,030</td>
</tr>
</tbody>
</table>

**Note:** Percentage increase in brackets.

**Source:**

a) i) District Census Handbooks of Ambala, Patiala and Kohistan, 1951.


* Compiled and computed for the I.S.C.R.

b) Census of India, General Population Tables (Separate Volumes) Part II-A 1971 for Punjab, Haryana, & India.
Thus in two decades there was an absolute increase of 500,557 people giving a growth rate of 136.37 per cent and an average addition of 200 persons per sq km. Indeed, it is an unprecedented increase in the demographic history of the region, especially when compared to the growth rates of the parent States of Punjab and Haryana having 47.98 per cent and 76.9 per cent increase respectively and 51.79 per cent for India as a whole.

Prior to 1951, no villagewise record of population date was maintained by the Census authorities. As such, figures for the total (rural and urban) growth of population of the region from 1900 to 1951 cannot be compiled. Hence the following discussion is only confined to some general comments on the growth of population of the region from 1900 to 1951 with special reference to the period of 1951-71.

Trend of population growth from 1900-1951:

The Inter-State Chandigarh Region, located in the midst of Ambala district of the Undivided Punjab, is bound to have experienced similar trends of population growth as in the parent district. The period of 1900-21 had a decline in population due to many deaths caused by calamitous happenings like famines and epidemics. The high birth and death rates (both being above 40 per thousand) cancelled out each other. On the other hand, the period of 1921-1951
witnessed a steady growth of population due to a drop in the mortality rate as a result of initiation of medical facilities and control over epidemics and endemic diseases. These factors led to a fall in the death rate which came down to 30 while the birth rate remained at 40 leading to a steady growth.

1951-71: period of accelerated growth:

There was a sharp rise of 136.87 per cent in the total population of the region (Table 3.1). Hence it has been termed as a period of accelerated growth. The reasons for this are:

i) Inmigration of people on account of job opportunities generated by the coming up of a multi-dimensional town of Chandigarh.

ii) High rate of natural increase because of the difference between sharp drop in the death rate and slow decline in the birth rate.

The population growth in the region has been accelerated by the immigration which has received impetus because:

a) Chandigarh was made the capital city of undivided (East) Punjab and, since 1966, of the three governments of Punjab, Haryana and the Union Territory of Chandigarh.
b) The availability of varied educational facilities in the nodal capital attracted a large number of students from the surrounding areas, Northern India and abroad.

c) Growth of industries in and around Chandigarh due to incentives given by the government.

d) The rehabilitation of refugees from Pakistan.

e) The redistribution of people from densely populated districts of Punjab (Amritsar and Gurdaspur) due to the feeling of insecurity there after the Indo-Pakistan War of 1965.

f) The desire of many people from India and abroad to come and settle in this clean, peaceful and quiet town.

Chandigarh city is full of migrants. Three out of every four persons are migrants*1 because all outsiders have settled here (Table 3.2). In fact, among the various socio-economic factors responsible for the movement of population from one area to the other, the emergence of new township, educational and industrial development*2 are most vital in the case under study. Of the total population of


*2. Census of India, 1971 Geographic Distribution of Internal Migration In India, p.3.
the I.S.C.R. of 1971, the city of Chandigarh alone has

Table 3.2.

<table>
<thead>
<tr>
<th>Total Percentage</th>
<th>Migrants of place of last residence, 1971.</th>
<th>Migrants</th>
<th>Migrants</th>
<th>Migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>76.28</td>
<td>1.47</td>
<td>73.41</td>
<td>1.36</td>
</tr>
<tr>
<td>Pural</td>
<td>46.08</td>
<td>6.29</td>
<td>38.72</td>
<td>0.72</td>
</tr>
<tr>
<td>Urban</td>
<td>79.43</td>
<td>0.96</td>
<td>77.03</td>
<td>1.43</td>
</tr>
</tbody>
</table>


*25.25 per cent share. It is thus apparent that this accelerated growth is due to the expansion of Chandigarh City.

HIGH RATE OF NATURAL INCREASE.

The sharp drop in death rate from 30 per thousand in 1951 to 10 in 1971, accompanied by a relatively low decline in birth rate from 40 to 30 in 1971 (Table 3.3) is the second basic cause for the rapid growth of population during 1951-71.
Table 3.3.
INTER-STATE CHANDIGARH REGION

<table>
<thead>
<tr>
<th></th>
<th>U.T. of Chandigarh*1</th>
<th>Punjab*2</th>
<th>Haryana*3</th>
<th>Average of 1*, 2*, 3*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth rate*4</td>
<td>26.74</td>
<td>34.2</td>
<td>38.9</td>
<td>30</td>
</tr>
<tr>
<td>Death rate*4</td>
<td>8.93</td>
<td>10.4</td>
<td>11.1</td>
<td>10</td>
</tr>
<tr>
<td>Infant mortality rate*5</td>
<td>56.76</td>
<td>99</td>
<td>80</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: *1. Health Department of the Union Territory of Chandigarh.
*4. Birth and death rate is per 100.
*5. I.M.R. is per 1,000.

Compiled and computed for I.S.C.R.

The sharp drop in the death rate has occurred because of the continued improvement in the medical facilities in the region and the various preventive measures taken by the Public Health Department during the Five Year Plans. Welfare departments set up child and mother care centres. The means of communication enabled the people to go in


emergencies to hospitals. The Post Graduate Institute of Medical Sciences at Chandigarh was able to provide medical care of a high standard. All these factors led to a marked reduction in the infant mortality rate, which in 1971 was 79 per thousand against more than 100 in 1951.

However, the fall in birth rate (from 40 in 1951 to 30 in 1971) did not keep pace with the fall in death rate (from 30 in 1951 to 10 in 1971). Thus, the natural increase rose from 1 per cent per annum of 1951 to 2 per cent per annum in 1971. The relatively slow fall in the birth rate is due to the prevailing practices of early marriage, lack of awareness of benefits of a small family, ignorance and prejudices against the use of family planning methods, low level of education and conservative outlook of the people. Also it has been observed that the scheduled caste population constituting one-fifth i.e. 19.74 per cent of total population of the region even to-day has little or no motivation to have small families. They regard children as gifts of God and want to make no voluntary effort to restrict their numbers. On the contrary, their belief in large families is based on economic reasons as rearing up a child becomes an additional source of income for the parents. It

*1. Most of these factors have been brought out in G.S. Gosal and N.S. Chhata's "Patterns of Population Growth in Punjab, 1951-61" Punjab University Research Bulletin p.55.
is also observed that the fecundity rate is high among the scheduled castes than among professional, trading and other classes because of difference in standard of living.

In Mitra's opinion, one of the reasons for large families in all but the high income groups might be that -

i) "The net outflow of wealth from children to parents over a lifetime would be greater than the net outflow of wealth from parents to children over a lifetime.

ii) The net economic benefits to parents from children before they are adults would possibly be greater than the perceived cost to parents of these children on account of upbringing and education.

iii) Daughters in their childhood and adolescence (until their marriage) are neglected. More labour is usually extracted from them by parents because the net flow of wealth from daughters to their parents generally stops after marriage". Moreover, among these lower classes, more children are considered a good insurance against the high mortality rate among them.

Despite the fall in birth rate, there is still scope for a further drop. Considering the staggering increase in

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population during the two decades and the probability of more in the years to follow, the effective implementation of family planning programmes is needed. Though the awareness for family planning in the rural areas has met with a fair amount of success, the gap between awareness and acceptance is wide. What was said by Gosal and Ojha in 1964 applies to the region even today that even if family planning meets a good degree of success, certain factors such as (a) "youthfulness of the population, (b) increasing incidence of widow remarriage, (c) fast declining rate of maternity deaths, and (d) improving health of the people as a result of medical and public health measures will continue to neutralize the achievements in population control for a number of years to come. The present trend indicates that there would be accelerated growth of population in coming years as there is no immediate prospect of any sharp decline in the birth rate.

RURAL-URBAN DIFFERENTIAL IN POPULATION GROWTH:

Having discussed the phenomenal growth of population in the region during 1951-71, we pass on to the varying rates of growth in rural and urban areas within the region.

The rural population increased from 332,151 in 1951 to 568,136 in 1971 accounting for a growth rate of 71.04 per

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cent. This does not stand much comparison with the urban population which rose from 33,562 in 1951 to 298,134 in 1971 that is a growth rate of 788.30 per cent (Table 3.4). It is interesting to note that the addition in absolute figures for both rural and urban areas is almost the same: 235,985 and 264,572 respectively though the percentage increase in the urban population is 11 times that of the rural. Nevertheless, the inter-censual decadewise growth percentages of urban and rural areas are varying: the urban areas have 340.48 per cent and 101.66 per cent increase during 1951-61 and 1961-71 decade, as against 35.72 per cent and 25.02 per cent increase for the rural areas during the corresponding decades. The disproportionate growth in the urban-rural areas of the region is accounted for by the growth of the nodal town of Chandigarh which is due to:

1) Dominance of immigrants in Chandigarh. The proportion of urban immigrants in 1971 was the highest in Chandigarh (94.63 per cent) followed by Delhi (93.67 per cent)\(^1\).

2) Rapid growth of industrial and commercial activities in and around the capital, and

3) Facilities of quick and efficient means of commuting within the region.

\(^1\) Census of India, Geographic Distribution of Internal Migration In India, 1971, p.4.
TABLE 3.4
INTER-STATE CHANDIGARH REGION
GROWTH OF RURAL AND URBAN POPULATION; 1951-71 *

<table>
<thead>
<tr>
<th>Total population</th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
<th>Difference in population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1951-61</td>
</tr>
<tr>
<td>Rural population</td>
<td>332,151</td>
<td>450,822</td>
<td>568,136</td>
<td>118,671</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(35.72)</td>
</tr>
<tr>
<td>Urban population</td>
<td>33,562</td>
<td>147,835</td>
<td>298,134</td>
<td>114,273</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(340.48)</td>
</tr>
</tbody>
</table>

Note: Percentage increase in brackets.

Source: District Census Handbooks of Ambala, Patiala, and Kohistan 1951.


* Compiled and computed for the I.S.C.R.
The Inter-State Chandigarh Region in 1951 had 90.82 per cent of its total population living in villages. It dropped to 65.58 per cent in 1971 due to the urbanization of the region. The growth rate of rural population in different parts of the region during 1951-71 varies greatly as it depends on the physical resources, socio-economic development and political history of the tract.

Patiali Rao Nadi forms the dividing line for the areas of slow growth of population on its western banks and areas of high growth on its right bank which extends till river Ghaggar. The peripheral villages around all towns have experienced faster growth than villages located away from them.

The growth of population has been slow in areas of high density and high in areas of low density, but the peripheral villages around towns are an exception to this trend (Maps 3.1, 2 & 3). The second significant point is the slow rate of growth of population in areas of high rate of literacy i.e. north western section of the region.

Three types of areas can be distinguished for the analysis of spatial patterns of growth of rural population based on the average growth of 57.8 per cent (Map 3.1).

1. Areas with a relatively slow growth of population of less than 40 per cent.
Inter-State Chandigarh Region
GROWTH OF RURAL POPULATION
1951-71

PERCENTAGE

- ABOVE 80
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20
- BELOW 0 (DECREASE)
- UNINHABITED VILLAGE
- U URBAN AREA
- DNA DATA NOT AVAILABLE

(Data by individual villages)

Map 31
2. Areas with rapid growth of more than 60 per cent.
3. Areas of moderate growth ranging between 40 and
   60 per cent.
1. **AREAS OF SLOW GROWTH OF RURAL POPULATION**
   There was a slow growth of population - less than 40
   per cent in 292 villages making up 30.5 per cent of the
   region. This category includes:
   i) North-western section of the region.
   ii) Patches in the hilly section of Naraingarh, and
   iii) The dissected plain of Rajpura Tehsil.
   There has been slow growth of population ranging
   between 15 and 35 per cent in the north-western part of
   the region covering the expanse west of Patiali Rao Nadi.
   This area has high rate of literacy and is marked by the
   lowest male-female differential in literacy (male literacy
   ranging between 45 to 55 per cent while female literacy rate
   ranges between 25 to 35 per cent). It is also characterised
   by high arithmetic density ranging between 250 and 450 persons
   per sq km (Map 2.3). The nutritional density is more than 350
   persons (Map 2.4). Thus the high pressure of population,
   because of natural increase, has reduced the size of land
   holdings. The efforts of the whole family are not required
   on small land holdings. Therefore the young educated
   members are encouraged to look for jobs outside. In some cases, the
   people have migrated to foreign countries. The high rate of
literacy has been an incentive for outmigration from these villages, resulting in slow growth of population. Besides, small peasants of Kharar and Roper Tehsils disposed of their land holdings at high prices and purchased cheaper land in Fatehgarh Sahib, Rajpura and parts of Patiala Tehsils where landlordism was the prevalent system of tenure and on account of the Land Ceiling Act (30 acre ceiling) many big landlords were keen to dispose of their excess land. Thus during the first inter-censal decade of 1951-61 (Map 3.2) this section witnessed very slow growth of less than 10 per cent and even a drop in the population while Rajpura and Fatehgarh Tehsils recorded growth ranging between 30 and 40 per cent. But during 1961-71 (Map 3.3) the area showed a higher rate of growth. Hence the high pressure of population on holdings and inadequacy of the farm economy to face the challenge of accelerating growth rate are the factors which forced the people to leave their homes leading to the net result of slow growth of population. Gosal and Ojha have also arrived at the same conclusion in explaining the reasons for slow growth of population in the


Inter-State Chandigarh Region
GROWTH OF RURAL POPULATION
1951 - 61

PERCENTAGE

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOVE 40</td>
<td></td>
</tr>
<tr>
<td>30 - 40</td>
<td></td>
</tr>
<tr>
<td>20 - 30</td>
<td></td>
</tr>
<tr>
<td>10 - 20</td>
<td></td>
</tr>
<tr>
<td>0 - 10</td>
<td></td>
</tr>
<tr>
<td>BELOW 0 (DECREASE)</td>
<td></td>
</tr>
</tbody>
</table>

DATA NOT AVAILABLE

UNINHABITED VILLAGE

URBAN AREA

(Data by individual villages)

Map 3-2
GROWTH OF RURAL POPULATION
1961-71

Inter-State Chandigarh Region

DATA NOT AVAILABLE
(DATA BY INDIVIDUAL VILLAGES)

Map 33
area encompassing Ludhiana and Ropar districts of Ambala Division during 1951-61.

The eastern fringe of the hilly region comprising Morni Hills and the southern dissected plain of Naraingarh and Rajpura Tehsils have also recorded slow growth of population. These constitute a small number of villages where the growth rate is between 30 to 40 per cent. These villages have the nutritional density of 300 to 400 persons per sq km. Difficult means of transport in rugged and dissected topography have impeded rapid growth. Other areas of slow population growth include the small patch north-west of Kalka town and the stretch along the course of river Chaggar and its tributaries. The dissection of land leads to outmigration of the people.

The 29 villages (3 per cent of the area of the region) have recorded a decrease in population growth. They are either in the hilly terrain or located on the periphery of towns like Chandigarh, Banur and Dera Bassi, parts of which have been merged in the cities as they expanded.

2. AREAS OF RAPID GROWTH OF POPULATION:

There was rapid growth of more than 60 per cent in the population of 460 villages constituting 48.2 per cent of the region. A major part of this is located in the central tract, a few in the hilly region and some in the peripheral villages around the towns.
A great expanse of land having Kalka and Banur as their central line is the area of the highest growth. This includes the peripheral villages located south-east of Chandigarh and the Chandigarh Kalka Highway. The area east of Mani Majra, now flourishing as Panchkula town, started growing in the late 60's. The change in arithmetic density of rural population was more marked in the 1961-71 than in 1951-61 decade (Maps 3.6 & 7). Similarly, the density of areas around the towns also witnessed a greater increase during the 1961-71 decade which is most marked in the case of Scheduled Castes (Map 3.4).

The high increase ranging between 60 and 80 per cent has been witnessed in the hilly area and the plains of Naraingarh Tehsil lying in the eastern and south eastern section of the region (Map 3.5). The hilly area which was cut off from the region before independence has now become a tourist attraction with easier accessibility. The south-eastern section, located in the floodplains of Som, Tangri, Begna and Markanda rivers went through flood control work, reclamation of land, and general development of the area during these decades. These factors explain the reasons for the rapid growth of this tract. If the threat of flash floods is overcome, there is scope for absorbing even more people in this area, its current nutritional density being only 200 to 350 persons only.
Inter-State Chandigarh Region
CHANGE IN DENSITY OF RURAL POPULATION
1951-71

CHANGE IN DENSITY OF POPULATION PER SQUARE KILOMETRE

- ABOVE 200
- 150 — 200
- 100 — 150
- 50 — 100
- 0 — 50
- BELOW 0 (DECREASE)
- X UNINHABITED VILLAGE
- U URBAN AREA
- DNA DATA NOT AVAILABLE

(Data by individual villages)

Map 35
Inter-State Chandigarh Region
CHANGE IN DENSITY OF RURAL POPULATION
1951 - 61

CHANGE IN POPULATION DENSITY
PER SQUARE KILOMETRE

ABOVE 100
75  100
50   75
25   50
0   25
BELOW 0 (DECREASE)

X UNINHABITED VILLAGE
U URBAN AREA
DNA DATA NOT AVAILABLE

(Data by individual villages)
Inter-State Chandigarh Region
CHANGE IN DENSITY OF
RURAL POPULATION
1961-71
(Data by Individual Villages)

CHANGE OF POPULATION DENSITY
PER SQUARE KILOMETRE

- ABOVE 100
- 75 — 100
- 50 — 75
- 25 — 50
- 0 — 25
- BELOW 0 (DECREASE)
- X UNINHABITED VILLAGE
- U URBAN AREA
- D N A DATA NOT AVAILABLE

Map 3-7
Thus the rapid growth of population around the nucleus of Chandigarh extending towards the central upland, lower dissected plain and hilly area has led to a further rise in the nutritional density of the population of the tract.

3. AREAS WITH MODERATE GROWTH OF RURAL POPULATION ranging between 40 to 60 per cent make up 204 villages or 21.3 per cent of the region. They are found in patches all over. They include the transitional position lying between Dera Bassi and Naraingarh in the dissected plain and the intervening area between the sections of extreme population growth. These are the areas which have had no worthwhile change in irrigation facilities because of the low water table and lack of industrial growth, besides difficulties of transport. The result has been outmigration to other parts of the region. Hence there has been only a moderate increase in the population.

In sum, the growth of rural population in the region during 1951-71 is marked in three belts running in the north-east and south-west direction. High population growth is in the extreme eastern section; very high growth in the central; low in the west and north-west while moderate growth is in patches in the intervening areas.

CONCLUSIONS:
1. The rate of growth of population (rural and urban) in the Inter-State Chandigarh Region has been considerable.
During a period of 20 years, i.e. 1951-71, it has been 136.37 per cent. This is the highest recorded growth rate for the region of any part of the present state. This phenomenal rate of growth has taken place on account of:

i) The coming up of the town of Chandigarh;

ii) Immigration of workers and their dependents from within the region as well as from different parts of the neighbouring states. They have settled down either in Chandigarh City or its surrounding rural areas.

iii) High rate of natural increase; a sharp drop in the death rate and relatively slow decline in the birth rate have been the additional contributory factors.

2. The urban population has recorded a growth rate of 788.30 per cent during 1951-71 as against the growth of rural population at 71.04 per cent for the corresponding period.

3. The spatial growth of rural population is related to the rate of literacy on the one hand and density of population on the other. The north-western section having the highest literacy has witnessed slow growth of population due to outmigration for various reasons. Many educated people have outmigrated to towns, especially Chandigarh or to foreign countries to seek non-agricultural jobs. The tract with moderate literacy
rate has shown a high growth of population.

4. The peripheral villages of all towns, especially Chandigarh, Mani Majra, Kalka and all along the Ambala-Kalka Highway have witnessed a very high rate of population growth during 1951-71. These villages provide cheaper accommodation and the cost of living is lower than the towns. A number of those who work in the towns prefer to live in the villages as commuting is not difficult.

5. Until now rapid growth of population has kept pace with the development of the economy of the region on the whole. But there is urgent need to bring down the birth rate, especially in the rural areas and among the Scheduled Castes, if the Inter-State Chandigarh Region is to consolidate its gains.