INTRODUCTION

The present study is an attempt to analyse empirically the impact of the planned city of Chandigarh on the population attributes of its surrounding region called the Inter-State Chandigarh Region or the I.S.C.R.*1

The city of Chandigarh was planned in 1951 and the bare infrastructure was built up rapidly so that it could be officially opened on 7th October, 1953. The city continued to develop in an area which was earlier backward and of a peripheral location. Chandigarh was set up with a dual purpose: to serve as the administrative centre for the then State of Punjab and also to act as the Regional Centre for education, health and commerce. Ever since its inception, the city has experienced phenomenal growth - both physical and demographic. This growth is logically expected to have considerable influence on the character of the surrounding region in its totality with special reference to its demographic components. Of the various socio-economic phenomena, the study of population is pivotal in geographic terms as "population is the point of reference from where

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*1. A Co-ordination Committee was set up on 16th September, 1975 with the co-operation of State Governments of Punjab, Haryana and the Union Territory Of Chandigarh. On 3rd November, 1976, it delineated a region around Chandigarh as the "Outline Master Plan" for the integrated regional development of the entire region which it described as the Inter-State Chandigarh Region.
all elements are observed and from which they singly and collectively derive significance and meaning.*1.

The study of population is not an exclusive domain of geography. Other social sciences such as demography, sociology, economics and anthropology also study population as an index of many inferences. Nevertheless, population geography has a distinct orientation and perspective. A demographer studies population as a phenomenon while trying to formulate theories based on quantitative observations; a sociologist studies the social groups in their institutional organizations; an economist tries to correlate the economic implications with the demographic patterns; an historian traces population through a period of time and an anthropologist studies man as a physical being. In contrast, a geographer studies population not as a phenomenon by itself but as a yardstick for differentiating one area from another in its varied characteristics. He also studies the dynamic aspects of spatial variations over time and their mutual inter-relationships. Population geography thus "acts as a master thread capable of weaving into a coherent pattern the otherwise disparate strands of the subject."*2.


After partition of the country in 1947, a new province of East Punjab was created and Simla became its first capital. The need for a new capital in the plains was strongly felt. The site of Chandigarh was chosen as it had:

i) a healthy climate and fairly fertile soils,
ii) central location in the undivided (east) Punjab,
iii) a good 225 kms from the international boundary with West Pakistan,
iv) relative closeness to the national capital, Delhi,
v) level land with a gentle slope,
vi) adequate supply of natural water,
vii) availability of building material, e.g. sandstone and cement,
viii) good scope for expansion and
ix) magnificent backdrop of Siwalik hills.

As Chandigarh is a created town, it was felt that it would take time to have a zone of influence in its neighbourhood. But rapid growth and development of Chandigarh proved that it was not just an imposed entity.

in a vast and barren landscape. The linguistic reorganization of the erstwhile undivided Punjab on 1st November, 1966, led to the creation of three units—Punjab, Haryana and the Union Territory of Chandigarh, thus raising the status of Chandigarh: it became the capital of these three administrative units. Its influence on the area outlined in the I.S.C.R. became strong and widespread. The aim of the author is to study the impact of the growth of Chandigarh on its surrounding region with special reference to the attributes of population namely the distribution and density, growth, literacy, sex composition, migration, occupational structure of the people and the growth of urban centres of the region.

The Inter-State Chandigarh Region.

The I.S.C.R. is formed over a landscape of 23 kms to 53 kms with Chandigarh as its core. It comprises 1,018 villages and nine towns within its territorial limits. The break up being as follows:
### TABLE I.

**COMPOSITION OF I.S.C.R. : 1971.**

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>Tehsil, No. of uninhabited villages</th>
<th>No. of villages</th>
<th>No. of Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>Ropar.</td>
<td>1.Kharar 281 8</td>
<td>60 3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Ropar.</td>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puniala</td>
<td></td>
<td>1.Fatehgarh Sahib. 81 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.Rajpura 209 15</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Haryana</td>
<td>Ambala</td>
<td>1.Kalka 154 16</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.Narnangarh 199 10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chandigarh</td>
<td>Chandigarh</td>
<td>34 8</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Source: Co-ordination Committee for Delineation of Inter-State Chandigarh Region.

The I.S.C.R. was delineated on variables like physiography, administrative boundaries, existing levels of development, future potential and influence zone of the major urban centres. Based on these criteria, the tehsils like Kharar (Ropar district of Punjab), Kalka (Ambala...
district of Haryana and the Union Territory of Chandigarh are fully included while Ronar Tehsil of Ropar district, Fatehgarh Sahib and Patiala Tehsils of Patiala district (Punjab) and Narainagarh Tehsil of Ambala district (Haryana) are partially included in the Region (Map O.1). This forms the study unit.

Selection of the Topic: The geographic study of demographic changes in the T.S.C.R. has been chosen because -

1) The present study is the first of its kind as it would examine the impact of a planned city on the demographic attributes of its surrounding area which is "functionally a viable region and could be used for the purpose of implementation and enforcement of regional planning by the Governments of Punjab, Haryana and the Union Territory of Chandigarh".

2) The trend of rapid urbanization needs to be studied first as a phenomenon and secondly to ensure further co-ordinated development of the region.

3) Population studies have been done and more are under way on the specific regions of Punjab.

*1. Report of Working Group No.1 on Regional Planning, Delineation of Inter-State Chandigarh Region, Chapter I.p.4.
and Haryana. In other words, this will provide another link for a comparative analysis of population change in the entire wider region.

It may be pointed out that the growth and expansion of Chandigarh has coincided with the execution of Five Year Plans in the region. It would thus be interesting to study and analyse the relative impact of these factors.

**Period of Study:** The study covers a 20 years period from 1951 to 1971 taking into account three Censuses. The reason for selecting this time scale is that this region was predominantly rural and backward in character till 1950. Urbanization in this region started with the decision of the Punjab Government to set up a new Capital city in 1951 after which the region has grown rapidly. The spatial patterns of demographic variations of 1971 can best be understood in the light of the pre-Chandigarh era of 1951. Therefore 1951-71 constitutes a period of great significance to describe, analyse and interpret the changes in the various elements of population of the region. The study could be extended up to 1981 to make the work quite up to date but the data of the last census was not a town in the Census.

*1. Chandigarh was not a town in 1951 for the Census.*
is still in the process of being tabulated and published.

Scale of study and sources of data:

The problem of demographic changes can be tackled in depth on a village level since the village forms the smallest unit of census with a high degree of reliability. The primary census abstracts of District Census Handbook of Ropar and Patiala district of Punjab; Ambala district of Haryana and the Union Territory of Chandigarh have constituted the major source of information. The District Census Handbooks of the same areas for 1961 and 1951 have also been used for all the variables. To supplement the information provided by the census and to find explanation of the emerging patterns, field work has been conducted in different parts of the region. The Indian Topographical Sheets with a scale of 1:50,000 bearing the numbers of 53P, 5,6,9,10, 11,13,14,15 and 53F, 1,2,3 have been consulted for an overview of the total landscape.

Limitations: There have been a few limitations in conducting this study. First, though the date pertaining to male and female literacy and occupational structure are published in the District Census Handbooks, the date pertaining to birth rate, death rate and migration are
not available for the tehsils and villages. Facts and figures for migrations at the village or the micro level are important, but not available. Hence the total influx of people into the region from different parts of Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan and Bihar cannot be ascertained. Secondly, even published data on the tehsil level could not, in many areas, be used as four out of seven tehsils are not wholly included in the region. Thirdly, there have been several changes in the political boundaries of the districts and tehsils of Punjab and Haryana during the period of study. The Dera Bassi rural block, a part of Pajura Tehsil under study, in 1951, formed part of Kohistan district of Pepsu. It became a part of Patiala district in 1961. Thus, while tracing back the data to 1951 census, a great difficulty was faced in locating the villages particularly due to changes in their hadbast*1 numbers, so much so that eleven villages of 1951 could not be traced at all and for reference are referred to as D.N.A. (data not available). The Tehsil of Kalka for 1951 census does not have published data on attributes like literacy and occupational structure.

*1. Hadbast numbers are the revenue numbers given to the villages tehsilwise for the collection of the revenue.
which is also referred to as D.N.A. The data on
occupational structure for 1951, 1961 and 1971 are not
comparable on account of definitional changes of a
worker.

Methodology: Maps in geography are as fundamental as
grammar is in English. In fact, the whole study is
based on what emerges from the maps prepared on the
basis of villagewise data. Most of the maps have been
prepared by the choropleth technique because it is the
chief instrument of human geographer in his quantitative
treatment of the distributional aspects of population*1.
The cartographic representation of the urban characteristics
has been plotted on the basis of data of individual
urban centres. In addition, a general survey of the
region has been undertaken to understand the spatial
organization of the population attributes and wherever
necessary, interviews have been conducted to ascertain
the validity of the results portrayed by maps. The maps
are prepared on the basis of data available from the
District Census Handbooks. The methodology thus is a
combination of mapping, use of statistical techniques and
field work.

Organization:

The study has been organized in eight chapters.
The details are as under:

Chapter I. The Region.
Chapter II. Distribution and Density of Population (General and Rural).
Chapter III. Growth of Population (General and Rural).
Chapter IV. Changes in Sex Ratio.
Chapter V. Changes in Rural Literacy.
Chapter VI. Changes In Occupational Structure.
Chapter VII. Urbanization of the I.S.C.R.
Chapter IX. Summary of Conclusions.