INTRODUCTION

Statement of the Problem

The developmental processes taking shape in the less developed countries have often been negated by the serious demographic situations prevailing in such nations. In India too, our continued failure on the demographic front has neutralized all our gains on the socio-economic front. It establishes that the continuing population explosion and the problems associated with it are the most challenging. It warrants a detailed analysis of various demographic attributes in all such countries. The present study is aimed at analysing, geographically, the patterns of population change in India during 1971-81.

The decade 1971-81 has been the most significant as far as the Indian demographic scene was concerned. During this decade, the country's population increased from 548 million to 685 million, implying an addition of 41 persons per km² during as short a period as a decade. It increased the density of population of the country from 167 in 1971 to 208 in 1981* (Census of India, 1981, xx & 4). It may be of

*Density of population has been calculated by including the projected population of Assam for 1981 as the regular census could not be held there due to disturbed conditions.
some interest to note that the average density for the world in 1984-85 was reported to be only 35 persons per km².

In terms of absolute numbers, about 137 million persons were added to the country's population during 1971-81 alone. It was more than the population of Japan. It implied that the country was still in the explosive second stage of demographic transition, where the death rates had declined significantly but the fall in birth rates was too gradual. While the mortality rate in India declined further from 15.9 per thousand to 12.3 per thousand during 1971-81, the fertility rate still soared at a high level of 33.8 per thousand in 1981. The continuously increasing rate of natural growth was, thus, the real bane of India's population problem. It was adding large proportion of young population to the country's teeming millions. It had its own serious implications.

No wonder, the number of illiterates in the country swelled to 424 million (1981) despite the country's achievements in the field of literacy and education. Similarly, the proportion of workers in the country continued to remain at a low level of 33.4 per cent in 1981. There was no improvement in the proportion of working population during the decade under review. It changed from 33.1 per cent in 1971 to 33.4 per cent in 1981. The stagnant proportion of working population in the country may have its explanation
partly in the population explosion the country was experiencing.

Not only that, the industrial structure of the country still continued to remain dominated by the agricultural sector. The proportion of those who were dependent directly upon agricultural sector declined only marginally from 69.8 per cent in 1971 to 66.5 per cent in 1981, implying that 2 out of every 3 workers still derived their livelihood from the agricultural sector. However, the decade 1971-81 recorded a relatively higher index of change in the country’s industrial structure in comparison to the preceding decade of 1961-71 (Kaur and Chandna, 1983, 98).

Perhaps the most important area in which the country witnessed the highest degree of dynamism during the decade under review was that of urbanisation. Although the proportion of urban population to total population improved only from 20.2 per cent in 1971 to 23.7 per cent in 1981, yet in many respects, the urban population has undergone changes of far reaching implications. For example, the proportion of urban population living in cities further increased sharply; the medium-sized towns, mostly the district headquarters, recorded high rate of growth; a large number of new towns emerged; and towns of all sizes recorded large influx of immigrants from the countryside, accelerated commuting notwithstanding. No wonder, the country was experiencing the
problems of mounting urban congestion, depleting urban amenities, increasing environmental pollution, deteriorating quality of life, increasing urban vice etc. which were normally met with at a high level of urbanisation, although the country was far from being a highly urbanised country.

As expected in a country of such a large size and diversity, the different parts of the country experienced varying nature and magnitude of demographic dynamism during 1971-81. Broadly speaking, the country was considered to be in the explosive second stage of demographic transition. However, there were areas like Kerala where both birth and death rates had fallen appreciably and were fast approaching the third and final stage of the transition. In 1981, Kerala had a mortality rate of 6.7 per thousand and fertility rate of 26.2 per thousand. On the other hand, there were areas like Madhya Pradesh, Uttar Pradesh, Bihar etc., where the birth and death rates corresponded to the early second stage of the demographic transition model. In these states, the mortality rates were in the neighbourhood of 15 per thousand, while the fertility rates stood on at a high level of about 38 per thousand. It gave rise to wide regional variations in the patterns of population growth in the country.

The spatial variations in the actual rate of population growth, on the other hand, were the product of the changing pattern of supporting capacity of different areas as
a consequence of various developmental activities. This in its own turn generated redistributional tendencies in the country's population. With the result, the patterns of population distribution and density as also of growth were modified through migration streams. Migration was, at places, family migration and short distance, at others, sex selective and long distance. It, thus, had its modifying effect not only on the patterns of population growth but also on the patterns of sex composition. Since there was little to differentiate between different parts of the country in terms of natural sex ratio, therefore, the varying patterns of change in sex ratio were the manifestations of the migratory trends and ethos.

Regional variations have also been observed in the patterns of all such attributes of population as literacy, working force, occupational structure, migration, urbanisation apart from distribution, density, growth and sex composition. The chief objective of the present study was to analyse all such changes in the demographic structure of the country during 1971-81 in spatial perspective.

Review of Literature

A perusal of the literature on population studies of India reveals that geographic analysis of Indian population has been confined largely to growth of population, though spatial patterns of other such attributes as like literacy,
sex composition, occupations have also received some attention. The growth of population in India has been analysed geographically by Gosal (1962, 1974 and 1982), Krishan (1975 and 1984), Franda (1975), Chandrasekhar (1976), Singh (1982) and Domros (1984). The attribute of distribution and density of population in India has suffered a pitiable neglect at the hands of geographers. Chatterjee (1962) using the 1951 census data made the pioneering attempt in this regard. Chandna and Kant (1985) analysed the patterns of population distribution and density in India in the context of 1981 data. Similarly, sex composition of India's population has been examined by Gosal (1961) in terms of its regional patterns, whereas Mitra (1979) has concentrated more on the implications of declining sex ratio in the country. The attribute of literacy, in terms of its regional pattern, has been studied by Gosal (1964, 1967 and 1979) and Schwartzberg (1961). The progress of female literacy in India has been analysed geographically by Krishan and Shyam (1973). Raza and Aggarwal (1986) have brought out inequalities in the levels of literacy in India. Sagar (1990) using 1981 data studied in detail the literacy differentials in India. Tilak (1981) has focused on inter-state disparities in educational development. The incidence of working force and the nature of occupational structure of Indian population has been analysed by Chellaswami (1958), Gosal (1958), Ganesharan (1960), Mehta

It reveals that while regional patterns of different attributes of population, at a particular point in time, have been examined at length by various scholars, the changes in various characteristics of Indian population, through time, have not received much attention of the Indian geographers. The present study aims at bridging this gap by analysing in detail the spatial patterns of change in various attributes of population of India during 1971-81. Although the study is confined to the period 1971-81, yet a brief resume of the trends during pre-1971 period, to the extent it is necessary, has been attempted at wherever possible.
Data Constraints

The study was primarily based upon the secondary data obtained largely from the census of India. Despite vast treasure of population data available with single organization like the Census, the population geographers dealing with the study of population change do face certain limitations of data. The data on vital rates, migration, and natural sex ratio were either most inadequate or non-existent. The non-availability of district-level data on fertility and mortality was a serious handicap for the studies of the kind. The analysis of population growth suffered the most from such an inadequacy of the data. Similarly, the non-availability of direct data on migration impeded seriously the comprehensive analysis of migration patterns.

Another serious inadequacy of population data was met with in the area of sex composition analysis, especially the changes therein. In a vast country of great socio-cultural diversity like that of India, there were bound to be differences in the natural sex ratio of different communities having different socio-cultural backgrounds. The non-availability of data on natural sex ratio was certainly a serious handicap in the analysis of sex composition.

Another area with serious limitations of data was that of the industrial structure, particularly when changes
in the industrial structure were to be accomplished. Firstly, the definition of a worker was modified significantly at the time of 1981 census. Secondly, while the 1971 census had classified the workers into nine industrial categories, the 1981 census classified the main workers into only four categories. It restricted the comparability of the data. Consequently, the comparative analysis of industrial structure became rather difficult.

Above all, since the 1981 census could not be conducted in Assam, it was a serious data gap which could not be resorted to. That is why, the state remained unrepresented on most of the maps.

Period of Study

The analysis of spatial patterns of population change in the country has been restricted to the decade 1971-81. It was the latest inter-censal period when the present research project was taken up. Not only that, a brief perusal of the trends in population in India during the present century had revealed that the decade 1971-81 was the most critical decade as it experienced the highest degree of demographic dynamism. It was also expected that the country’s population may have reached the take-off stage during this decade and the subsequent decade of 1981-91 could initiate a new trend. However, since by the time the project was completed the provisional census data for the year 1991 started trickling
in. Therefore, it became necessary to add a note on the population situation in the country as prevailing in 1991.

Unit of Work

The present study deals with population situation in a country of a sub-continental size. It has been deemed fit to use district as a unit of work. There were in all 412 districts in the country at the time of 1981 census (Fig. 1). Although, a district in itself was a fairly large areal unit covering, on an average, an area of 7982 km² and having a population of 1,654,944 persons, yet the district has emerged as a functional unit because of its administrative role and control. Moreover, 412 was a fairly large number of units to work upon. Thus, the present study made use of the district level data for comprehending the spatial patterns of change in various attributes of population.

Methodology

The patterns of population change in the country have been analysed with the help of systematic approach. The district level data published by the census of India were obtained from various census publications and were processed and represented cartographically. As many as 36 maps and diagrams have been prepared to comprehend the patterns of population change in the country. Since most of the data being used were transformed into ratio values, therefore, the
Figure 1
choropleth technique was used most extensively for portraying regional patterns. The discussion in the entire manuscript was based upon what emerged on these maps.

Mention must also be made here of the map prepared for depicting the patterns of migration. As observed earlier, no direct data on migration were available. In the present analysis, it was presumed that in most of the states, there were not much intra-state differences in the rate of natural increase. Therefore, the rate of natural increase for the state as a whole for the decade (obtained by census differencing method) was considered to be applicable to all the districts of the concerned state. The difference between the actual rate of growth experienced by a specific district during 1971-81 and the average rate of natural increase for the concerned state for the same period was calculated to know whether the district had experienced net in-migration or net out-migration. With the help of this calculation, the areas of in-migration and areas of out-migration were demarcated and a map showing patterns of migration was developed. It formed the basis of analysis in the chapter on migration patterns.

Organization of Material

It was proposed to organize the material in eight chapters. The first chapter has been devoted to changes in the patterns of population distribution and density while the
following chapter traces the patterns of population growth in the country. The patterns of migration in the country have been discussed in chapter III. The subsequent chapter deals with the patterns of change in sex ratio. Chapter V depicts the patterns of change in literacy rates and chapter VI examines the changes in working force and industrial structure of the country. The pace of urbanisation in the country has been dealt with in Chapter VII. In the final chapter, a brief resume of the population situation as revealed by the latest census of 1991 has been presented with a view to giving an idea as to what has been the trend in population in the following decade. In the end, a brief summary of conclusions arrived at different chapters has been provided.

References


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