POPULATION GEOGRAPHY

CONTENTS

POPULATION GEOGRAPHY IN INDIA

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Population Geography in India has made remarkable progress in a short span of about 30 years. Gosal's doctoral work done with Glenn T. Trewartha (1956) provided the initial framework of Population Geography in India. No wonder the dominant mode of inquiry employed here has been the spatial perspective. However, Indian population geography still continues to suffer from an empirical bias. The attempts to develop theories and models are almost non-existent.

Fortunately, the Indian demographic scene with all its complexities offers a rich laboratory for Indian population geographers for the development of theories and models. Models and theories developeped in spatial-cultural-political-historial context of India, shall have added utility because of their probable applicability to the entire less developed World. That should be a great stimulus for population geographers of the coming years to work in this direction. Challenges before Indian population geographers are serious, warranting equally serious effort.

Although population geography in India had a late start (early 1960's), yet it has made remarkable progress during its short life span of about 30 years, if the magnitude and quality of research work done is any indication. The discipline of geography itself is one of the young disciplines in India. In early days of development of geography in India, urban geography and agricultural geography remained relatively more favoured branches of systematic geography, courtesy a few senior geographers of the yesteryears. The intial framework of India's population geography was provided by the doctoral work of Gosal (1956) supervised by Glenn Trewartha. Subsequently, studies using similar methodology were carried out under Gosal's supervision at the Panjab University since 1960's by Krishan (1968), Chandna (1970), and Mehta (1971).

The Department of Geography at the Panjab University, Chandigarh was the first in India to introduce teaching and research in population geography at the post-graduate level in early 1960's. The The pioneering department by now has emerged as the chief centre of research in population geography. No wonder, the very first Text Book on population geography (Chandna and Sidhu, 1980) as well as most of the subsequent texts and other books in population geography have come from this department (Chandna, 1986, Chandna 1987, Chandna 1989, Mehta 1990).

The philosophy of population geography in India has, of course, been consistent with the philosophy of geography itself. As the dominant mode of enquiry employed in geography is spatial perspective, the population geography in India has consistently maintained a spatial perspective. It has maintained its focus on spatial distributions, spatial relationship, spatial interactions while dealing with any demographic

phenomenon. Thus, spatial approach consistently constituted the methodological basis of geographic study of population in India. However, a perusal of work done by Indian population geographers reveals that much remains to be achieved as far as the integration of population analysis with aggregate nature of places is concerned. The Study of socio-economic implications of spatial distributions has received relatively less attention. Growth of population geography in India has, of course, its own demands, in conceptual as well as methodological fields. Population geographers of India have done commendable work in 30 years, yet need to address themselves more to the methodological and conceptual problems. The infrastructural feedback required for theoretical development seems to have been attained.

As expected in the infancy stage of growth of a field of specialisation, population geography in India has had an empirical bias. Generally, population distributions have been mapped and pattern so emerging have been explained in their physico-socio-cultural contexts. The emphasis varied from physical to social or cultural factors from scholars to scholar. There have been only few attempts to theorise. Therefore, even to say that 'facts to theory' approach has been followed would be stating the half truth. Of recent there have been a few attempts to use 'theory to facts' approach at doctoral research level at micro scale. The intention here is not to convey the superiority of 'theory to facts' approach over emprical approach. The dualism between the two is non-existent. The two are so inter-linked and interdependent that simultaneous development of both the approaches is imperative

for the growth of geography in general and population geography in particular.

The use of theoretical approach is contingent upon comprehensive training of population geographers in the use of a variety of quantitative techniques which seem to have been mastered by sociology, economics, psychology etc. Multivariate analysis, factor analysis, principal component analysis are only a few techniques which need to be mastered by geographers who have to analyse situations which are becoming increasingly complex in the modern world. Model building, hypotheses testing, and theory formulation are the real challenging fields for population geographers of the coming years.

Indian population geographers are fortunate that the local demographic scene, which is extremely diverse and complex provides them the incentive for the use of sophisticated quantitative techniques. The quantification and use of sophisticated techniques shall not only bring precision in interpretation but also shall help in the development of theories. It needs stressing here that theories and models developed elesewhere in the world have their own spatial-cultural-political-historical context. Such models and theories in most cases do not fit into Indian context. The local demogrdphic scene provides a rich laboratory for population geographers for the development of models and theories that fit into spatial-cultural-political-historical context of India. Such models and theories, if developed, may find their applicability in other less developed countries as well, where the socio-cultural scene is also similar. It should

provide stimulus to Indian population geographers for developing ttheories and models.

Some credit for progress of population geography in India must be given to the Census of India, which by now has over hundred years of history. India is fortunate in having a well developed census system comparable fairly well with those of the most advanced countries. The variety of information being collected, the different levels of scale at which the data are released, the reliability of its data and the efficiency with which the basic data are released, are all commendable. The data for most of the attributes of population are provided by the Indian census at various scales like village, teshil, district and state. The vast treasure of census data in India provided the greatest stimulus to population geographers for taking up research on various attributes of population for different parts of the country. Some local studies have made full use of village level data revealing demographic realities that normally remain undiscovered at macro-scale of work conducted with the objective of arriving at broad generalisations. Village level data are ultimate in detail.

An easy access to the vast treasure of Indian census data did encourage geographers to take up geographic analysis of population for almost every part of the country both at micro and marco scales. It did promote the development of population geography in the country. However, one of the serious implications of ready availability of vast census data had been that Indian geographers have shied away from the primary data and field work based studies.

Consequently micro-level studies based on primary data have suffered a neglect in the country. Also field work based studies have been avoided. Field work is necessary not only for supplementing the work with additional primary data but also for understanding the processes that create existing spatial distributions. It is only through field work that one can feel the real pulse of the region. It has rightly been said that even the most sophisticated modern quantitative techniques cannot observe what a perceptive mind can in the field. Collection of data from the field and conducting field work in India, of course, have their own problems and limitations. Illiteracy, suspecion, security problems, general apathy etc. are only few of the handicaps that confront the Indian geographers. The challenges for Indian geographers are enormous. They must evolve not only their own methodologies for collecting diverse information from the field but also their own research techniques for analysing their culture-specific complex demographic situations.

Recently, trend towards field work based micro-level studies at least at doctoral level research (Sharma, 1991) has been observed. An increasing number of young population geographers have started taking up research problems that speak of a much desired departure from complete dependence upon census data. The increasing number of such studies, it is hoped, shall break new methodological grounds.

With declining dependence upon census data, the scale of work is also undergoing a perceptible change. Population geography in India is gradually shifting from micro-

scale.   However, it is not to convey that the large scale studies are being discarded completely but only to emphasize that simultaneous growth of micro as well as macro scale studies in India has been observed during the last decade or so.

As far as the content of population geography is concerned, there are core and peripheral issues. Those at the core are largely concerned with the distribution and structure of population; with mortality, fertility and migration; what causes them to be as these are? why these change through space and over time ? and with how and why these affect other socio-cultural, economic, political, and environmental issues ? At the periphery lie issues that are central to other specialisations, such as urbanisation, social segregation etc. Indian population geographers have restricted their studies to those attributes of population for which census data are available. Even among these attributes, the most favourites have been the growth of population, literacy, sex composition, urbanisation, working force. By comparison, studies on distribution and density have suffered a serious neglect both at national and regional levels. Population sheets published by the national Atlas Organisation using 1951 data apart, there have been only two such a studies (Chatterjee, 1962 aud Chandna & Kant, 1985) for the country as a whole. While Chatterjee used 1951 census data, Chandna and Kant used 1981 district level data. Just two studies in a span of over 30 years on such crucial attribute as distribution and density reveal of the serious gaps in the content of population geography of India.

Another neglected areas has been that of vital rates. The neglect of studies relating to fertility and mortality has perhaps been due to non-availability of census data on vital rates. Nonethe'ess, micro-level studies on mortality and fertility could have been taken up by collecting the primary data. The redeeming feature is that a few studies on fertility and its determinants at micro-level have been taken up by Indian geographers. Similarly, studies on the deprived sections of Indian society such as scheduled castes and scheduled tribes have also caught geographer's imagination (Chandna, 1985; Chandna, 1989). Atlases of Scheduled Castes (Chandna 1985) and of Scheduled Tribes (Raza, 1990) are the welcome additions to Indian population geography.

Publication of Text Books is another measure of the growth of a field of specialisation. Fortunetaly, India does not lag far behind the West in this regard.   First Introductory Text in population geography in India appeared in 1980 (Chandna and Sidhu). A more comprehensive volume on population geography dealing with concepts determinants and patterns was brought out in 1986 (Chandna). Subsequently, some more texts on the subjects started appearing (Ojha, 1984 and Lal, 1986). Keeping in view the fact that mojority of Indian students received their education in Indian languages, the first text on population geography in the national language of Hindi was brought out in 1987 (Chandna), Again the first book dealing exclusively with various attributes of Scheduled Caste population of India was brought out in 1989. A volume on migration patterns in Punjab's region, on unemployment and underemployment in Punjab and on urbanisation in India are

welcome additions to the growing number of books in this field of specialisation (Mehta, 1990 Krishan, 1985 and Bala, 1986).

The increasing interest of Indian geographers in population studies is also reflected in the emergence of an Association of Population Geographers of India with its headquarters at the Department of Geography, Panjab University, Chandigarh. One of the major accomplishments of this Association is the publication of research journal, *Population Geography*. The overwhelming response the journal has received from geographers all over the world speaks of the success of this venture. It is hoped that through this venture the Indian population geographers will be able to serve the cause of population geography more vigorously.

In fine, population geography in India has yet not divorced empirical approach, nor are its accomplishments complete in terms of areal coverage and contents. Many areas in the country still remain uncovered as do some of the vital aspects of population. Deficiencies of data continue to handicap geographers as they continue to shy away from field work, which is none too easy to conduct in Indian situations. Micro-level studies are now picking but only at the snail's pace and so are the theoretical formulations by Indian population geographers. Challenges are serious, warranting equally serious effort.

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WORK FORCE OF INDIA'S SCHEDULED CASTE POPULATION : A SPATIAL PERSPECTIVE

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The purpose of this paper is to examine the work force of India's scheduled caste population in a spatial perspective. The main discussion in the study is based on what has emerged in detailed maps made from district-wise data relating to the workers. At the marco-regional level, Peninsular India stands head and shoulders above northern India in the proportion of workers to the total scheduled caste population. The most crucial factor in this broad regional differentiation is the degree of participation of the females in the struggle for earning a livelihood. This in turn is associated with the social status and autonomy of women in the society and their freedom from inhibitions to work outside the home. Obviously, these factors are deeply rooted in the history of the two marco regions and their parts. Inter-mingled with the social and cultural dimensions are the demographic, economic and political variables which together have made an impact on the magnitude and composition of the work force. There are further disparities in this regard within and across these macro-regions, at meso and micro regional levels, which are connected with socio-economic and demographic specificities of the local/regional situations.

Introduction

The number of bread winners and their proportion to total population, their educational attainments, the regularity of their employment and the amount they earn are some of the basic questions for understanding the economic and social well-being of a population. The occupational composition of these bread winners and their age and sex structure provide further insight into their life. The magnitude of the work force in a population at a given point of time is the net result of a complex inter-functioing of demographic, socio-economic, cultural and historical factors (Chandna, 1989, p. 90).

As per 1981 Census, 36.1 per cent of the scheduled caste persons in India are workers as against 32.9 per cent among the non-scheduled caste people. The relatively high percentage of workers in the scheduled caste population is largely attributable to greater participation of their females in the work force (Table 1). The difference between the proportions of scheduled caste and non-scheduled caste male workers is only marginal. Another notable feature of their work force is the participation of children in economic activities (Chandna, 1989, p. 90) Furthermore, the difference between the magnitude of the scheduled caste and non-scheduled caste work forces is more in rural areas than in urban areas. An overwhelming majority of the scheduled caste workers find employment in agriculture and in minor miscellaneous services which can engage females as well as children, without any educational or literacy requirements (Chandna, 1989, p. 90). Acute

Table 1

INDIA : Main Workers, 1981

Category of Main Workers		Total (per cent)	Rural (per cent)	Urban (per cent)
Scheduled Caste	Persons	36.1	37.2	30.1
	Males	52.6	53.7	46.8
	Females	18.4	19.7	11.5
General Population	Persons	33.4	34.7	29.2
	Males	51.6	52.6	48.5
	Females	13.9	15.9	7.2
Non-Scheduled Caste	Persons	32.9	34.2	29.1
	Males	51.4	52.3	48.7
	Females	13.1	15.2	6.7

Source :   Computed from :—

(1)   Census of India (1981) : *Primary Census Abstract-General Population*, Series I, India, Part II-B (i), The Controller of Publications, G.O.I., Delhi.

(ii)   Census of India (1981) : *Primary Census Abstract-Scheduled Castes*, Series I, India, Part II-B (ii), The Controller of Publications, G.O.I., Delhi.

poverty and conditions of deprivation in which they live, particularly in the rural areas, force them to join the economic struggle at an early age of life. These compulsions also urge their females to disregard any inhibitions for joining outdoor activities which are so characteristic of many other sections of the Indian society.

It may, however, be mentioned that even this relatively high rate of participation (36.1 per cent) in economic activities among the scheduled caste people is low in a global perspe-

ctive. This is so because the scheduled castes are in the explosive stage of demographic transition in which the proportion of children (below fifteen years of age) to total population is very high—estimated to be around 40 per cent. Such a high percentage of the population in child age group reduces the size of the work force. It is to be noted that there is a slight decline in their work participation rate from 36.4 percent in 1971 to 36.1 per cent in 1981. As for the males the decline is from 54.0 per cent to 52.6 per cent. Among other

factors. the decline in the proportion of male workers is connected with their increasingly going to school rather than joining the work force in the context of several types of concessions and reservations in education. In the case of the females, however, there is a slight increase from 17.5 per cent to 18.4 per cent during the decade. The slight decline in the overall participation rate may possibly be related to an upsurge in their rate of natural growth during 1971-81, as a consequence of a significant fall in their mortality rate.

Male Female Differential

It is a traditional, universal phenomenon that the males have to bear the responsibility of earning livelihood for the family. It is true to a larger degree in the developing parts of the world than in the developed countries. Likewise, within societies, there are variations from one section to another. With 52.6 per cent of males and 18.4 per cent of the females constituting the work force of India's scheduled caste population, their male-female differential works out to 2.8:1 as against 3.9:1 in the non-scheduled caste sections. The male dominated work force both among the scheduled caste and non-scheduled caste people in India is attributable to the patriarchal system prevailing in the country for centuries, throwing the responsibility of earning a livelihood on the male shoulders (Chandna, 1989, p. 91). The relatively small male-female differential in the work force of the scheduled caste population is related to the harsh social and economic realities of their life, compelling their womenfolk to join the males in the economic struggle.

There are vast spatial variations in male-female differential in work force of the scheduled caste population (Maps 2 and 3). This is mainly due to the variations in the female participation in work which ranges from 2.9. per cent in Punjab to 41.2 per cent in Andhra Pradesh. The male-female differential in work participation is smaller in Peninsular India and much larger in northern India.

Rural-Urban Differential

The rural and urban areas present different scenarios in the scheduled caste work force, just as in the non-scheduled caste population (Table 1). As per 1981 Census, while 37.2 per cent of the rural scheduled caste population constitutes the work force, the corresponding figure for urban areas is 30.1 per cent. The higher rate of participation in economic activities in the rural areas than in urban areas arises from the fact that the economic realities which the scheduled caste people face in villages are harder than those in towns and cities. These economic exigencies force men and women, and also some children, to join hands for earning a livelihood. This is made possible by the availability of unskilled jobs in agriculture and other humble vocations in the countryside. These do not require any level of education or literacy. Most of these activities, particularly those at the farm, are seasonal in nature resulting in temporary unemployment and underemployment leading to higher participation in work during the working season (Chandna, 1989, p. 91). On the other hand, in towns and cities the jobs available to the scheduled caste people, apart from menial ones, are such as require some amount of schooling or literacy. Consequently, their participation becomes more restrictive than what is true in the countryside. The general climate of hope and progress and greater

Table 2

INDIA : Percentage of Workers Among Scheduled Castes and Non-Scheduled Castes, 1981

State/Union Territory	Percentage of Scheduled Caste Workers			Percentage of Non-Scheduled Caste Workers		
	Persons	Males	Females	Persons	Male	Females
India*‡‡	36.1	52.6	18.4	32.9	51.4	13.1
States						
Andhra Pradesh	50.3	59.1	41.2	40.8	56.7	24.5
Tamil Nadu	45.8	56.9	34.5	37.8	55.6	19 6
Sikkim	42 4	53.4	30.2	46.8	56.7	34.9
Karnataka	41 0	54.7	27.0	35 9	53·7	17.5
Madhya Pradesh	40.5	53.2	26.9	38.0	53.5	21.6
Maharashtra	40.2	50.8	29.0	38.5	52.6	23.5
Manipur	38.9	50.7	26.7	40.3	45.8	34.6
Bihar	36.4	52.5	19.7	28.5	48.6	7.2
Orissa	40.3	59.6	20.8	32.1	53.9	9.8
Kerala	36.2	44.3	28.3	25.6	40.6	11.0
Himachal Pradesh	35.6	51.1	19.4	33.9	49.0	18.4
Meghalaya	33.3	54.0	7.3	43.4	53.1	33.3
Rajasthan	32.0	50.5	11.7	30.1	49.7	8.8
Uttar Pradesh	31.6	51.7	9.1	28.5	49.9	4.3
Gujarat	31.4	46.9	15.0	32.2	52.5	10.7
West Bengal	29.5	50.8	16.6	27.8	48.1	5.5
Punjab	29.0	51.6	2.9	29.4	53.7	2.0
Haryana	28.5	50.1	3.1	28.2	49.0	4.3
Jammu & Kashmir‡‡	28.2	50.5	4.0	30.5	52.3	6.0
Tripura	27.9	49.6	4.9	29.9	49.1	9.6
Nagaland	N	N	N	47.5	51.9	42.4
Union Territories						
Mizoram	82.2	91.6	6.6	41.7	50.3	32.3
Arunachal Pradesh	42.6	63.7	7.1	49.6	57.3	40.6
Pondicherry	38.7	50.8	26.1	26.7	45.0	8.1
Goa, Daman & Diu	34.8	48.0	21.3	30.5	45.8	14.9
Chandigarh	33.8	52.6	9.1	34.8	54.8	8.8
Delhi	30.2	48.2	8.0	32.3	53.3	6.1
Dadra & Nagar Haveli	26.3	45.0	9.7	41.1	55.2	26.4
Andaman & Nicobar Islands	N	N	N	33.2	54.5	5.0
Lakshadweep	N	N	N	19.7	33.5	5.5

* Does not include Assam where census could not be held due to disturbed conditions in 1981.

‡‡ Excludes population of areas under unlawful occupation of Pakistan and China where census could not be taken.

N No castes were scheduled by the President of India for Nagaland, Andaman & Nicobar Islands and Lakshadweep.

Source : Computed from :—

(i) Census of India (1981) : *Primary Census Abstract-General Population*, Series I, India, Part II-B(i), The controller of Publications, G.O.I., Delhi.

(ii) Census of India (1981) : *Primary Census Abstract-Scheduled Castes*, Series I, India, Part II-B (ii), The Controller of Publications, G.O.I., Delhi.

awareness about the reservations for employment in towns and cities induce these people to send their children to school instead of having them join the work force. Morever, wages in the urban sector are more regular, more assured ard relatively high, thus reducing the necessity for all family members to join the economic struggle.

Both in terms of male-female and rural-urban disparities in work participation among these people, there are wide areal variations associated with their demographic economic, social, cultural and historical backgrounds.

Spatial Pattern

In a country of sub-continental size like India, the national average does not provide a wholly realistic picture. It hides many areal contrasts. Even a broad inter-state comparison reveals a range from 27.9 per cent to 50.3 per cent in the work force (Table 2). The national average of 36.1. per cent divides the state almost evenly. With 50.3 per cent of its scheduled caste population constituting the working force, Andhra Pradesh is at the top of all states in this regard, followed by Tamil Nadu (45.8), Sikkim (42.4), Karnataka (41.0), Madhya Pradesh (40.5) and Maharashtra (40.2). On the other hand, in the states like Rajasthan, Uttar Pradesh, West Bengal, Punjab, Haryana, Jammu and Kashmir, and Tripura the proportion of the work force ranges between 27.9 and 32.0 per cent. The contrast between Peninsular and north Indian states as revealed by the above figures is largely the product of variations in female participation in work force. The males represent a fairly uniform pattern, or at least the range of their participation rates is small (Map 2). The much higher percentage of females joining the
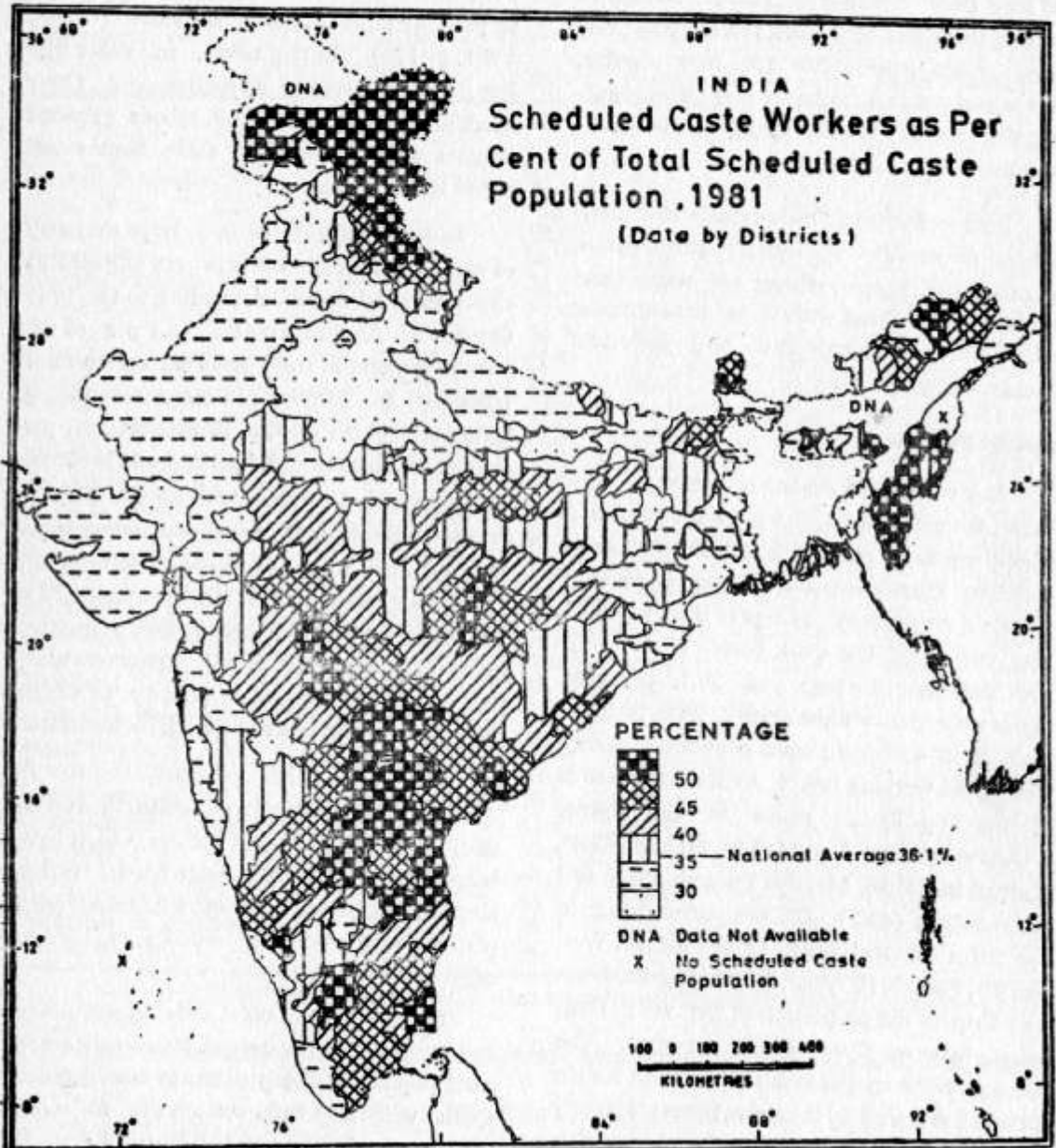
work force in Peninsular India is connected with the higher social status and autonomy of women freeing them from any inhibitions to participate in outdoor activities (Gosal, 1961, p. 126). In the north, in states like Punjab, Haryana, Rajasthan and Uttar Pradesh, on the other hand, taboos against females working outside their homes are rather strong.

In Peninsular India, in a large majority of cases the female workers are engaged as agricultural labourers. According to the 1981 Census, in Andhra Pradesh 85.1 per of the female workers in rural areas are agricultural labourers. In Tamil Nadu the corresponding figure is 81.4 per cent, in Karnataka 70.7 per cent, in Maharashtra 73.5 per cent and in Kerala 68.6 per cent. In areas with long history of feudal landlordism, the scheduled caste persons were the main source of labour for farming. Labour intensive crops like rice engaged a bulk of the female work force in their respective areas (Chandna, 1989, p. 94). Elsewhere also, the conditions of abject poverty in which they lived forced them to work on the farms as labourers.

Thus, there is a mix of cultural, economic, social and historical factors which have been responsible for the wide spatial variations in the proportion of scheduled caste persons, particularly the females, engaged in economic activities.

Based on districtwise data on scheduled caste workers as per cent of total scheduled caste population, Map 1 brings out detailed spatial variations from which the following three types of areas may be identified :

A   Areas of relatively high proportion of scheduled Caste Workers (more than 40 per cent)

INDIA

Scheduled Caste Workers as Per Cent of Total Scheduled Caste Population, 1981

(Data by Districts)

PERCENTAGE

50
45
40
35 — National Average 36·1 %
30

DNA   Data Not Available
X   No Scheduled Caste Population

100   0   100   200   300   400
KILOMETRES

Map 1

Map 2

INDIA

**Female Scheduled Caste Workers
as Per Cent of Total Female Sche-
duled Caste Population , 1981**

(Data by Districts)

DNA

PERCENTAGE

30
25
20 ─── National Average 18·4 %
15
10

DNA Data Not Available
X   No Scheduled Caste Population
▲   No Female Scheduled
     Caste Population

100 0 100 200 300 400
KILOMETRES

Map 3

B   Areas of relatively low proportion of scheduled caste workers (less than 35 per cent)

C   Areas of relatively moderate proportion of scheduled caste workers (35 to 40 per cent)

A   Areas of Relatively High Proportion of Workers

With more than 40 per cent of the scheduled caste persons engaged in economic activities, these areas (covering a total of 141 districts in the country) are mostly spread over a large part of Peninsular India. Also, included in this category are some remote parts of northeastern and northwestern India, but here the scheduled caste population is insignificant in numerical terms. Two sub-types may be identified within this type of areas :
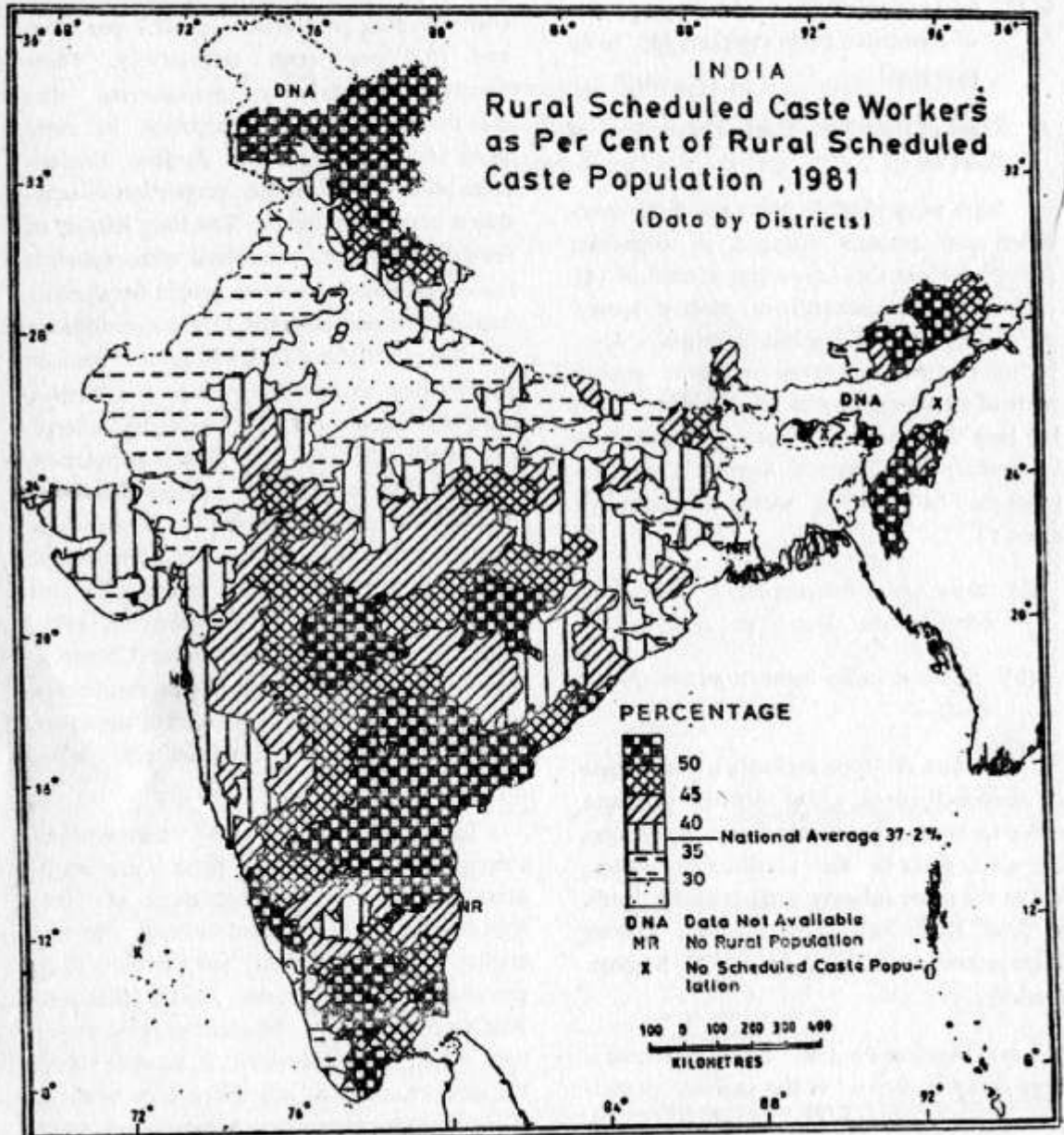
(a) those where the proportion of the work force is more than 50 per cent and

(b) where it varies between 40 and 50 per cent.

The first sub-type includes a large part of Andhra Pradesh, a few districts scattered along its border, the northwestern Himalayas and a few areas in the northeastern states. While the other sub-type includes large parts of Tamil Nadu, eastern Karnataka, eastern Maharashtra and large parts of Madhya Pradesh.
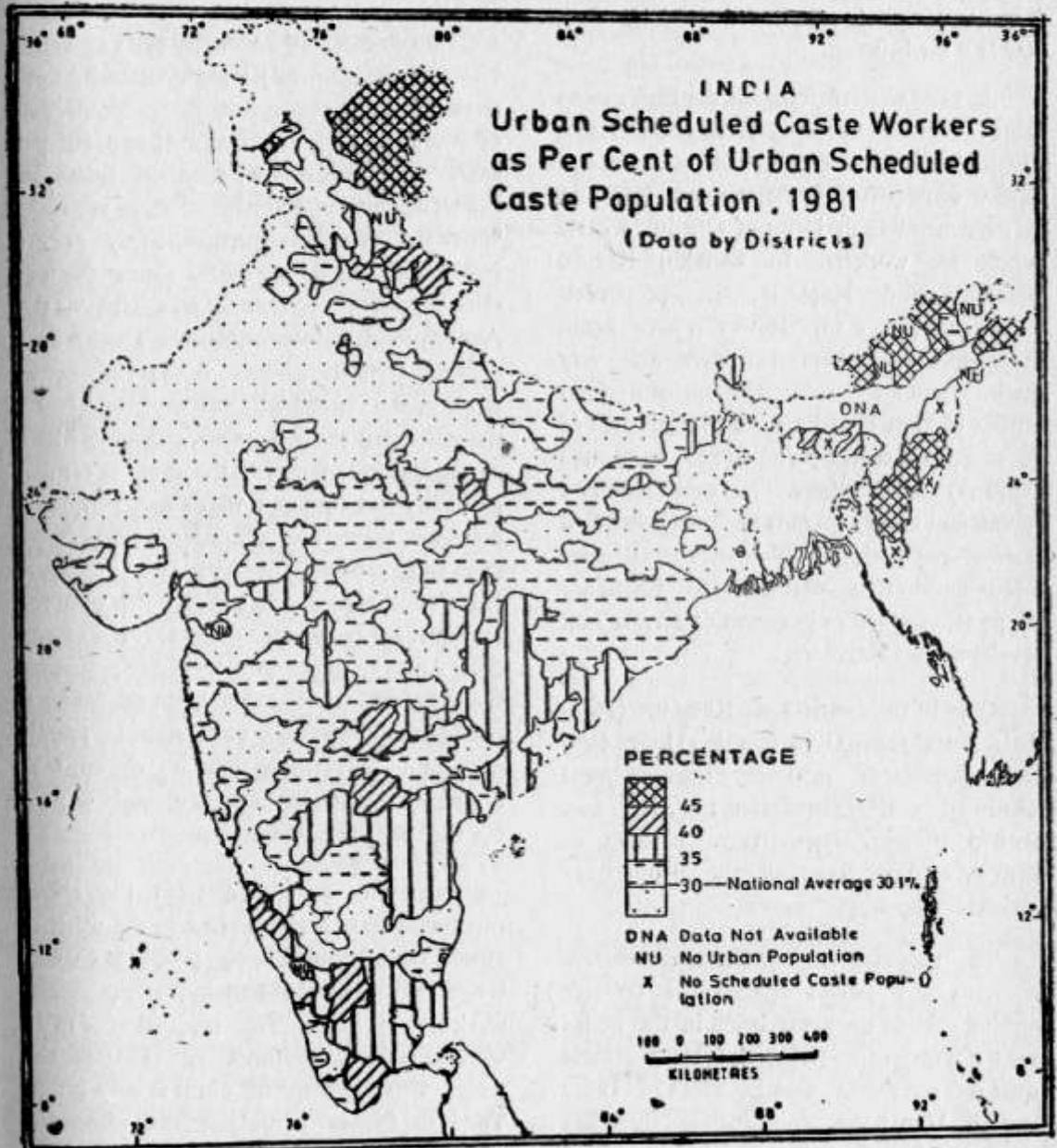
(a) Andhra Pradesh areas constitute a large compact region of the highest participation rates among the scheduled caste people. Here the proportion of workers is more than 50 per cent. It is higher in the rural areas : 53.2 per cent (Map 4). In urban areas their participation rate is 34.0 per cent (Map 5). In the rural areas 61.2 per cent of the males and 45.1 per cent of the females are gainfully employed. In the urban areas their corresponding proportions are 47.7 per cent, and 19.6 per cent, respectively. These figures unmistakably demonstrate that it is the high female participation in rural areas which distinguishes Andhra Pradesh from other regions in the proportion of scheduled caste work force. The long history of feudal landlordism connected with exploitation of the scheduled caste people for agricultural labour and domestic services, conditions of acute poverty and lack of taboos against the females engaging in outdoor activities have been instrumental in bringing a large part of the scheduled caste female population into the work force. The process of intensification of agriculture during the post-Independence years, based on increased irrigational facilities, has increased the demand for farm labour further accentuating scheduled caste participation in agricultural labour (Chandna, 1989, p. 97). No wonder, in the rural areas of Andhra Pradesh 72.6 per cent of the scheduled caste workers are agricu'tural labourers.

In northeastern and northwestern extremities of India there are small areas where a large percentage of the scheduled caste people are workers. In the northeast, in Mizoram the proportion is 82.2 per cent. In Manipur, the Jaintia Hills and East Gargo Hills of Meghalaya it is more than 50 per cent, However, in most of them the actual number of scheduled caste workers is small (Mizoram 111, Meghalaya 1, 834) and thus of little significance. An overwhelming majority of those in Mizoram, Manipur and Meghalaya are migrants from other parts

INDIA
Rural Scheduled Caste Workers
as Per Cent of Rural Scheduled
Caste Population, 1981
(Data by Districts)

PERCENTAGE

50
45
40
———— National Average 37·2%
35
30

DNA   Data Not Available
MR   No Rural Population
X   No Scheduled Caste Population

100 0 100 200 300 400
KILOMETRES

Map 4

INDIA

Urban Scheduled Caste Workers as Per Cent of Urban Scheduled Caste Population . 1981

(Data by Districts)

PERCENTAGE

45
40
35
30—National Average 30·1%

DNA Data Not Available
NU   No Urban Population
X   No Scheduled Caste Popu-
     lation

100 0 100 200 300 400

KILOMETRES

Map 5

of the country, engaged in civil services, security services or miscellaneous services. In Meghalaya and Mizoram they are very largely male workers. The female workers are few and far between.

In northwestern India, in the high mountainous regions extending from Uttar Kashi district in Uttar Pradesh to the northern and northwestern parts of Jammu and Kashmir, an overwhelming majority of scheduled caste people are workers. In Ladakh, Kargil, Baramula and Kupwara, the proportion exceeds 90 per cent. However, here again the absolute numbers involved are very small. Similarly, in Lahaul and Spiti district of Himachal Pradesh 74.0 per cent of the scheduled caste persons (723 in actual numbers) are workers. In these remote mountainous areas there is no local scheduled caste population. The few persons belonging to these castes that are found are migrants, engaged in government service and developmental activities.

Only in the districts of Kinnaur (Himchal Pradesh) and Uttar Kashi (Uttar Pradesh) there is a relatively sizeable local scheduled caste population : 6, 331 and 41, 875 persons, respectively. In both of them over 50 per cent of the people are workers.

The mountainous terrain and a culture free from any taboos against the females working outside the home bring in the males and the females into the work force in almost equal measures. In fact in areas of Uttar Pradesh Himalayas, from where there has been migration of males to other parts of the country for better employment, the females constitute a large part of the work force (Map 3). The main source of their livelihood comes from farming which they do on small plots of land owned by them.

(b) Among the areas included in the second sub-category are large parts of Tamil Nandu and areas adjoining Andhra Pradesh tract discussed above, where the proportion of workers ranges between 45 and 50 per cent. Further peripheral to these tracts on the west, north and northeast, there are areas where the proportion predominantly ranges between 40 and 45 per cent. From the locational pattern of these areas vis-a-vis the Andhra Pradesh tract one discerns a gradual decrease from the core to the periphery in terms of the percentage of workers among the scheduled caste persons. It looks like a strong cultural factor at the core becoming gradually less strong towards the periphery. However, there are occassional departures from this pattern. In Thanjavur, Periyar, and Coimbatore districts of Tamil Nandu for example, the percentage of workers exceeds 50. Apart from the cultural factor providing freedom from taboos against females working outside the home, rice cultivation in Thanjavur, and industrialisation in Coimbatore offer employment to both men and women of the scheduled castes.

It may be concluded from the above discussion that high percentage of workers among the scheduled caste people is characteristic of areas where female participation in work force is high. The proportion of male workers is fairly uniform, or at least the range of spatial disparities in it is only small. The high female participation is associated with : (1) lack of inhibitions or taboos against their working outside the home ; (2) abject poverty compelling them, and also the children, to join the males in the econo-

mic struggle ; (3) feudalistic background where they are still exploited for farm labour and lowly jobs and (4) out-migration of the males to outside areas in search of better employment, leaving the local economic activity in the hands of the females, specially in areas of mountainous terrain. In remote mountainous areas, where the scheduled caste people are mostly adult migrants, generally in small numbers, the proportion of workers among them is high. The mining and plantation activities also provide employment opportunities to both men and women, contributing to high percentage of workers.

B Areas of Relatively Low Proportion of Workers

The areas with less than 35 per cent of the scheduled caste population joining the work force represent sub-national conditions in this regard. They cover a total of 184 districts. Among them are several districts where the proportion of workers is even less than 30 per cent. In all these areas female participation in work force is minimal, well below 10 per cent, adversely affecting the overall magnitude of the working population.

Areas where less than 30 per cent of the scheduled caste people are workers include Tripura, Punjab, Haryana, southeastern and western Uttar Pradesh, northeastern Rajasthan, West Bengal, central Gujarat Plain, and a few other scattered areas.

In Punjab, Haryana, western Uttar Pradesh and northeastern Rajasthan where less than 30 per cent of the scheduled caste people are workers, both historical events and cultural factors have raised strong taboos against females joining in outdoor work (Mehta, 1967, p. 52; and Mukerji and

Mehta, 1975, p. 106). In this entire region the proportion of female workers is insignificant : in Punjab only 2.9, per cent and in Haryana 3.1 per cent. Despite progressive, labour intensive agriculture in these two states, the females do not join in farm activities. On the other hand, the corresponding proportions for the males in the two states are 51.6, and 50.1 per cent, respectively. Thus, it is the utter lack of participation of females in work which is instrumental in bringing down the overall proportion of workers in these areas. This is true of the scheduled caste and non-scheduled caste population here (Table 2). Another reason for low proportion of workers in this tract is its long tradition of emigration from among all sections of its society. To meet the ever increasing needs of farm labour in the region, streams of male migrants have been coming into Punjab and Haryana from northern Bihar and eastern Uttar Pradesh in recent years (Sidhu and Grewal, 1984, P. 15).

In the east, in Tripura and the northern, eastern and southern parts of West Bengal also the proportion of workers among the scheduled caste is below 30 per cent. With only 27.9 per cent of the scheduled caste people as workers, Tripura has the lowest proportion among all the states in India. In most of these areas which adjoin Bangladesh, the unending infiltration of non-working people (children and women) from Bangladesh has been an important factor. It is further supplemented by the Bangla culture which inhibits the women from doing outdoor work.

In southeastern Uttar Pradesh in the districts of Azamgarh, Jaunpur, Ballia and Gazipur also less than 30 per cent of the

scheduled caste people are workers. The proportion of male workers to the male population, is well below 50 per cent everywhere. On the other hand, only 12 to 14 per cent of the females are part of the work force. The overall low proportion of workers in this tract is attributable, among other things, to substantial out-migration from among the working males.

Likewise, in central Gujarat Plain and northern Kerala continuing tradition of out-migration/emigration has made an adverse impact on the proportion of workers among the scheduled caste people.

It emerges from the above discussion that very low proportion of workers among the scheduled castes is directly related to : (1) the prevailing taboos against the females joining in the outdoor economic activities, and (2) the impact of out-migration on the proportion of workers in the population left behind.

With decreasing severity of taboos against female participation in outdoor economic activities, the overall proportion somewhat improves, as in north Bihar Plain, north-eastern and central Uttar Pradesh, western Rajasthan, and eastern and western Gujarat. Here, 30 to 35 per cent of the scheduled caste people are workers, with female participation in work force ranging generally between 10 and 20 per cent. Also, in the denesely populated north Indian areas the pressure of population on land is heavy and jobs available to the scheduled castes are relatively few (Gill 1984, p. 964). They have been subjected to a lot of exploitation by the feudal landlords for work on the farms as in the north Bihar Plain and eastern Uttar

Pradesh (Sidhu and Grewal, 1984, pp. 12-13). Consequently, there has been a lot of migration from these areas to other parts of the country in recent years, thus reducing their overall proportion of workers.

In western Rajasthan the arid climate and the general scarcity of resources restrict the avenues of employment to the scheduled caste people. As a result, many of the working age group people migrate to areas of potential employment.

Thus, it may be concluded from the above that while in northwestern India, particularly in Punjab, Haryana and western Uttar Pradesh, strong taboos against female participation in outdoor activities account for the overall low percentage of workers; in north Bihar, central and eastern Uttar Pradesh and Rajasthan lack of avenues of employment, poor resources and out-migration triggered off, among other factors, by the exploitation of the weaker sections of the population by the mighty landlords, are important factors connected with the low proportion of workers among the scheduled caste people.

C Areas of Relatively Moderate Proportion of workers

With 35 to 40 per cent of the scheduled caste persons registered as workers, this category of areas is represented by 66 districts. The national average of 36.1 per cent falls in it. In locational pattern these areas border on high and low percentage categories discussed above. They include a large part of Orissa, southern Bihar, parts of northern, northeastern and central parts of Madhya Pradesh, northwestern Maharashtra, north-western and southern Karnataka, central

Kerala and few other scattered districts. In all of them 20 to 30 per cent of the females are workers, contributing to moderate overall rates of working population. The expanding mining, agricultural and forest-based activities in many of these areas provide avenues of employment to both men and women.

Thus, the moderate proportion of workers among the scheduled castes in these areas is associated with moderate participation of females in economic activities. However, among the areas, there are variations in participation of men and women in the work force.

Conclusion

Consistent with its placement in the early stages of demographic transition, India's scheduled caste population has a relatively low proportion of workers. This is so because the proportion of children in the early stages of transition is very high. However, compared to the rest of the Indian society (32.9. per cent), the scheduled castes have a higher percentage of workers (36.1 per cent). This is attributable to a large proportion of their females participating in the work force. Because of the prevailingly acute poverty and conditions of deprivation, the struggle for earning a livelihood is hard in their case, compelling women as also children o join the work force. Consequently, their male-female differential in work force works out to 2.8:1 as against 3.9:1 in the non-scheduled caste population. The overall male-dominated work force both among the scheduled caste and non-scheduled caste sections of the Indian population is attributable to the patriarchal system prevailing in the country.

Everywhere in the country the proportion of workers in the scheduled caste population is higher in rural areas than in urban areas. In the villages, agriculture provides work both to men and women. It does not require any level of education or literarcy as a pre-requisite. In the towns and cities, on the other hand, most of the activities in the secondary and tertiary sectors require some amount of education and skill. Moreover, with more facilities for schooling available in the urban areas, the parents send their children to schools.

A spatial perspective on the scheduled caste work force reveals wide areal variations. At the macro level, with a much higher proportion of workers among the scheduled castes, Peninsular India stands in marked contrast to northern India. In Peninsular India, traditionally the women have remained relatively free from inhibitions in joining in outdoor work while in the north, particularly the northwest, there has been a strong taboo against their participating in economic activities outside the home. Within these marco regions there are variations in the proportion of workers at regional and local levels, associated with their respective social, economic and cultural peculiarities.

Areas having relatively high proportion of workers among the scheduled castes are those . (1) which are relatively free from taboos against female participation in outdoor economic activities, (2) where the scheduled caste people are exploited for agricultural labour due to feudalistic background, (3) where mining or plantation activities offer employment to both men and women, and (4) where the scheduled caste

workers are in-migrants engaged in various services as in remote high mountainous areas.

On the other hand, areas of low proportion of workers among the scheduled castes are those : (1) where taboos against female participation in outdoor work are strong, (2) from where there has been a lot of out-migration/emigration of workers, and (3) where the resources are poor and avenues of employment limited.

In view of the wide variations in the proportion of female workers among the scheduled castes, and only small variations in the proportion of male workers, it comes out clearly that the proportion of female workers is the most crucial factor in determining the overall size of the work force, and spatial variations therein.

ACKNOWLEDGEMENT

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REGIONAL DIMENSIONS OF POPULATION IN INDIA

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The Present paper emphasses on to analyse the regional characteristics of population wherein four population variables, viz. density, growth, urbanisation and literacy, are discussed at the meso-level of regional structure (28 meso-regions) of the country. The inter-relationships among these variables are worked out explaining their cause and effect relationship. Except density and growth which are inversely related, other variables are positively correlated. There emerges no strong and definite pattern of population characteristics when viewed at these meso-level natural regions of the country unfolding the significant role played by socio-economic and cultural factors in determining the population characteristics Further, it also emphasises the need of intermixing cultural factors with natural factors while carving out homogeneous geographical regions. It has, however, given a grouping of regions combining the effect of these variables which, to a certain extent, signifies the utility of such population studies carried out at the level of naturally homogeneous regions.

The present endeavour has an emphasis on analysing distributional pattern of some of the population characteristics as a case perceived at the physiographic-regional level, that is to say, the variability of population characteristics over different natural environments as well as within a similar physical entity. Specifically, it aims at analysing the pattern of population density, growth, urbanisation level and literacy varying from one physiographic region to other and the relationship of these four variables with each other at the same level of regional structure.

The unit (physiographic region) taken for this study is the meso-level region which falls at the second level in the four-tier hierarchy of regions in India, viz., macro, meso, micro and sub-micro as delineated by the Census Organisation in a project study entitled "Regional Division of India : A Cartographic Analysis". As brought out by this study, there are 4 macro, 28 meso, 101 micro and 1814 sub-micro regions all over the country. The regional structure for the present analysis has been taken as that composed of 28 meso-level regions spreading over the four macro regions of the country. Characteristically, these are physiographically homogeneous units demarcated on the basis of relief, geology, soils, vegetation and climate. Cultural factors have been kept aside in this exercise. (Fig. 1).

The distribution of four population variables specified as above has been examined and their inter relationship analysed at the meso level structure of regional delineation of India. It shows the variability in the distribution of population characteristics at the physiographic-region level and

INDIA
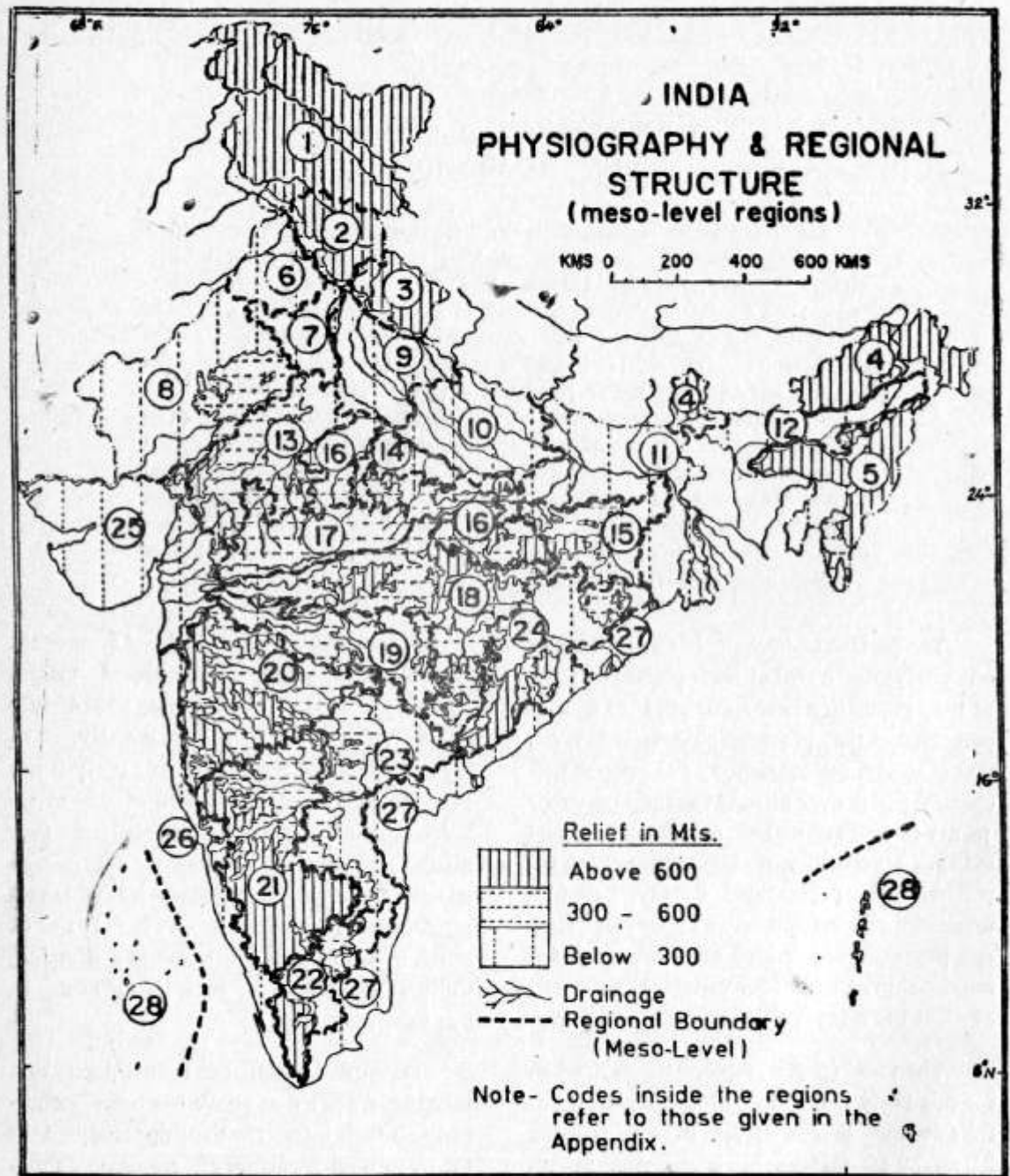PHYSIOGRAPHY & REGIONAL
STRUCTURE
(meso-level regions)

KMS 0   200   400   600 KMS

Relief in Mts.

Above 600

300 — 600

Below 300

Drainage

Regional Boundary
(Meso-Level)

Note- Codes inside the regions
refer to those given in the
Appendix.

Fig. 1

Table 1 :

Mean (X), S.D. (σ), and Co-efficient of variation (C.V.) of Population Characteristics

Sl. No.	Population variables	X	σ	C.V. (%)
1.	Density (per km²)	215.26	158 56	73. 49
2.	Growth (%) 1971-81	27.33	7.34	27.18
3.	Urban Population (%)	22.96	7.73	33.67
4.	Literacy (%	35.70	9.87	27.41

highlights the distortions, if any, within the region of similar environmental conditions that might be caused by the interference of the anthropogenitic process.

It is evident from the table that the pattern of population density with a mean of 215.26 shows the highest variability (C.V. 73.49%) amongst the variables considered. Here it is also relevant to see that the density per km² shows a great difference among the regions and ranges from the minimum of 27 in the Jammu & Kashmir Himalaya to the maximum of 609 in the Lower Ganga Plain (Appendix-I).

In spatial perspectives, Fig. 2.A shows that the density of population has the pattern more in accordance with the physical environment. The density is higher in the regions of Lower Ganga Plain, Middle Ganga Plain, Upper Ganga Plain, Haryana Plain, Western Coastal Region, Punjab Plain, Eastern Coastal Region, Tamil Nadu Uplands and Bihar-West Bengal Uplands. All these display a favourable environmental conditions for a higher population concentration. On the contrary, the areas inhospitable for human habitation show a low density. These are

namely, the Jammu & Kashmir Himalaya, The Islands, North-Eastern Himalaya, Arid Rajasthan Plain, Eastern Hill Zone, Himachal Pradesh Himalaya, and the U.P. Himalaya.

The fact is obvious that the density pattern is highly guided by the country's physiographic conditions whereas the growth of population is determined more by the factors such as migration, unbanisation and industrialization. The growth of population during 1971-81 ranges between 16.92% in the Tamil Nadu Uplands to 55.84% in the Islands (Appendix). The mean of growth has been 27.33% with a co-efficient of variation of 27.18% which is the minimum amongst all the variables (Table-1). It certainly stresses that this variable (growth) is the least affected by the physical conditions, instead it has a socio-economic bearing.

The spatial aspect of the growth, pattern (Fig.-2.B) also supports this fact. It is clear here that the high growth is observed in the North-Eastern Himalaya, Eastern Hill Zone and The Islands (perhaps on account of low death rate as well as influx of people from other areas), Haryana Plain and Semi-arid

INDIA
Growth of Population
1971-81
(Data by Individual Districts)

D.N.A

Percentage

40
30
20
10

D.N.A Data not available

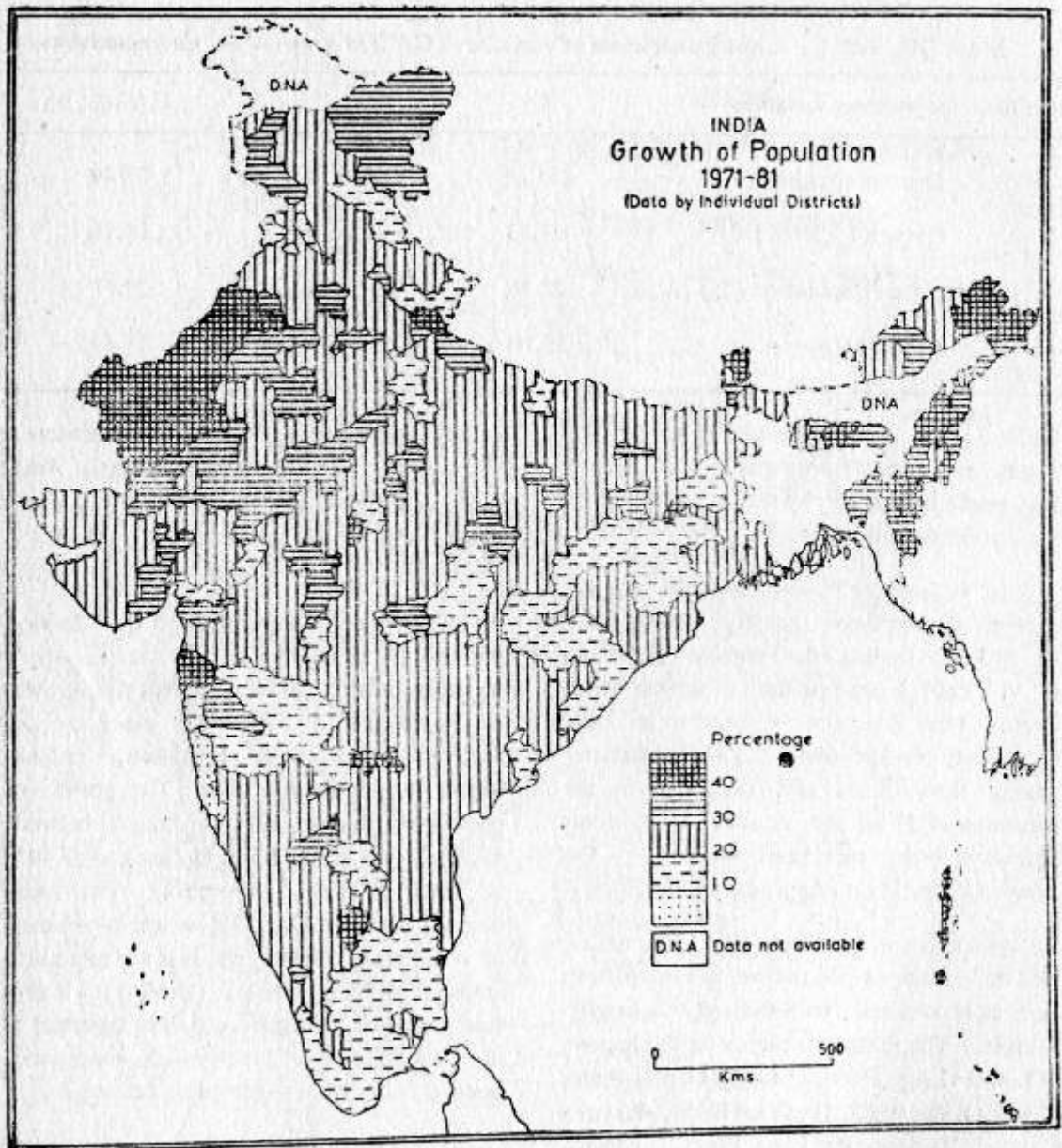0   500
Kms.

Fig. 2

Rajasthan (due to urbanization and industrialisation leading to pulling of population) and Arid Rajasthan Plain (due to high birth rate and immigration). Simultaneously, the low growth has either been recorded by already highly populated areas reaching the level of sustenance like the Western and Eastern Coastal Regions, Punjab Plain, Middle Ganga Plain or by the areas from where there has been a continuous out-flow of labourers and job-seekers such as the Lower Ganga Plain, Bihar--West Bengal Uplands, Southern Madhya Pradesh Upland, Orissa Highlands and Northern Maharashtra.

Thus it provides a clue to believe that the growth is more affected by socio-economic behaviour of the humans rather than by the physical character of the country.

Turning to the next variable, i.e. urbanization, it is undebatable to agree that favourable physiographic conditions help a better urbanization. Evidently, the areas having higher proportion of urban population are those where there are comparatively congenial physiographic conditions such as Western Coastal Region, Gujarat Region, Tamil Nadu Uplands, The Islands, Punjab Plain, Karnataka Plataeu, Central Madhya Pradesh Uplands, Eastern Coastal Region and Northern Maharashtra. The proportion of urban population is low in hilly and rough plateau areas such as Himachal Pradesh Himalaya, Orissa Highlands, Northern Madhya Pradesh Uplands, North Eastern Himalaya, Eastern Hill Zone, Bihar-West Bengal Uplands and Southern Madhya Pradesh Uplands. The proportion of urban population is also low in some other areas on account of higher concentration of rural population as in the case of Middle Ganga Plain and Lower Ganga Plain (Fig. 2C).

Table-1 shows that this variable has the second highest variability (C.V.33.67%) with a mean of 22.96%.

Unlike the above, the rate of literacy is a complex phenomenon and is found more in association with the cultural factors like urbanization, transport and communication network. The literacy is high in the Western Coastal Region, The Islands, Northern Maharashtra, Haryana Plain, Gujarat Region, Tamil Nadu Upland, Himachal Pradesh Himalaya, Eastern Coastal Region, Maharashtra Plateau, Eastern Hill Zone and Punjab Plain. The lowest literacy rate is observed in Arid Rajasthan Plain followed by Northern Madhya Pradesh Uplands, Semi-Arid Rajasthan Plain, Middle Ganga Plain, Orissa Highlands, Bihar-West Bengal Uplands, Southern Madhya Pradesh Uplands, and Central Madhya Pradesh Uplands.

Besides the individual characteristics to these variables at the physiographic level it is significant to study their inter-relationships resulting into originate more interesting findings.

The correlation matrix (Table 2) shows inter-relationship among these variables which prevail with varying nature within varying physical environment. Except the relationship between density and growth, which are inversely cor-related there has been a positive relationship among the other variables. However, the significant relationship has been shown only by the variables viz. (i) density and growth, (ii) density and urban population and (iii) Literacy and urban population. To explain, the inverse relationship between the density and growth signifies that the areas of high population concent-

Table-2 : Correlation Matrix

Variables	Density	Growth	Urban Pop.	Literacy
Density	——			
Growth	0.34*	——		
Urban Pop.	0.32*	-0.24	——	
Literacy	0.20	0.18	0.59**	——

* Significant at 5 per cent level.

** Significant at 1 per cent level.

ration are showing lower growth while the thinly populated areas have started growing faster (also compare Fig. 2.A and 2.B). It is a peculiar feature indeed at the country level. It may be envisaged as a fact that an outmigration from the densely populated areas (which continues as a process) may have lowered down the probable increase in the total population which might have otherwise occurred. The case of Middle and Lower Ganga Plains and Western Coastal Region may find a context here. On the other hand, urban population and growth has not shown significant relationship (although positive) which emphasises that (i) the growth has not merely been confined to urban areas and also (ii) the growth in urban areas has not in accordance with their population size. Likely, there has been no significant relationship between growth of population and literacy. The positive relationship between these two is perhaps an outcome of the meagre proportion of literates in the total population at the country level. Otherwise, as a common observation, both these variables are, quite expected to show

an inverse relationship at the lower levels of regional structure. Urbanisation level and literacy rates show a significant positive relationship obviously due to higher concentration of literates in urban areas.

A region with high growth, high density, high proportion of urban population and high literacy may be designated as developed population region in terms of population resources. But most obviously, it has been noted in this analysis that there existed a poor or even the negative relationship among the variables and that too with no definite pattern. However, to some extent density and urbanisation and literacy and urbanisation go side by side with a few exceptions where the condition has been reverse. To explain, for example, most of the hill areas show a low proportion of urban population but a high literacy rate.

It would be pertinent here also to have a view of the levels of regions that are an outcome of combined impact of these factors. Leaving aside the growth which is adversely related with density, if

the three variables of each meso-region are ranked and combined to get a composite rank value there will emerge a hierarchy of the regions as below :

Table 3 : **Levels of Population Regions**

Levels	Regions
I	Western Coastal Region, Haryana Plain, Tamil Nadu Uplands, Gujarat Region; Punjab Plain, Eastern Coastal Region, Northern Maharashtra, Karnataka Plateau, Maharashtra Plateau.
II	The Islands, Lower Ganga Plain, Upper Ganga Plain, Central Madhya Pradesh Uplands, Bihar-West Bengal Uplands, Andhra Plateau, Middle Ganga Plain, Uttar Pradesh Himalaya, Eastern Hill Zone.
III	Uttar Pradesh Uplands, Southern Madhya Pradesh Uplands, Himachal Pradesh Himalaya, Semi-Arid Rajasthan, North-Eastern Himalaya, Orissa Highlands, Arid Rajasthan Plain, J&K Himalaya, Northern Madhya, Pradesh Uplands.

Note : Excludes the region Brahmaputra Valley for which 1981 data are not available.

The foregoing analysis explains that there emerges no strong pattern of population characteristics if viewed and analysed at these meso level natural regions. It is perhaps due to the reason that the population distribution is equally determined by the anthropogenetic forces which have not been taken into account while delineating these meso regions. One may consider here the analysis to be indicative of the importance of cultural factors determining the homogeneity of a region considered for such studies in regional geography.

However, the analysis based on these natural regions has given some important clues regarding population characteristics at this regional level and also has given a grouping of region having in them the characteristics more or less similar in one way or the other. Thus, the regions listed at level I, all having favourable physiographic conditions, may be considered as population hub of the country and may constantly require a population policy programme quite different from the regions grouped at other two levels. Similarly, the regions at level III have different population problems with unfavourable physiographic conditions and hence may require a distinctive priority treatment as far as the population issues of the country are concerned.

Appendix : India-Regional Population Characteristics, 1981

Sl. No. (Code)	Physiographic Regions (Meso-level)	Density per Km²	Growth 1971-81 (%)	Urban Population (%)	Literates (%)
1.	Jammu & Kashmir Himalaya	27	29.69	21.05	26.67
2.	Himachal Pradesh Himalaya	77	23.71	7.61	42.48
3.	Uttar Pradesh Himalaya	95	26.52	18.30	39.29
4.	North-Eastern Himalaya	42	30.48	16.38	31.53
5.	Eastern Hill Zone	65	35.39	17.84	41.67
6.	Punjab Plain	342	24.86	29.41	41.49
7.	Haryana Plain	419	35.74	44.90	44.39
8.	Arid Rajasthan Plain	65	37.47	21.39	22 70
9.	Upper Ganga Plain	460	25.92	23.05	27.09
10.	Middle Ganga Plain	508	24.77	14.22	25.70
11.	Lower Ganga Plain	609	23.68	18.50	33.50
12.	Brahmputra Valley	NA	NA	NA	NA
13.	Semi-Arid Rajasthan	156	30.22	20.82	25.48
14.	Uttar Pradesh Uplands	183	28.05	18.10	27.47
15.	Bihar-West Bengal Uplands	226	22.97	19.22	28.17
16.	Northern Madhya Pradesh Uplands	111	26.79	16.23	23.31
17.	Central Madhya Pradesh Uplands	137	28.79	27.52	29.76
18.	Southern Madhya Pradesh Uplands	112	22.45	18.35	29.44
19.	Northern Maharashtra	155	22.95	25.26	45.39
20.	Maharashtra Plateau	184	21.91	24.78	41.96
21.	Karnataka Plateau	195	27.07	29.32	37.09
22.	Tamil Nadu Uplands	328	16.92	30.52	43.13
23.	Andhra Plateau	164	25.45	23.67	27.68
24.	Orissa Highlands	129	18.80	12.17	28.05
25.	Gujarat Region	174	27.70	31.04	43.66
26.	Western Coastal Region	492	23.78	35.60	64.94
27.	Eastern Coastal Region	329	19.60	26.67	42.37
28.	The Islands	28	55.84	29.81	52.17
	INDIA*	207	24.69	23.70	36.23

**Excluding Assam

MIGRATION PATTERNS IN INDIA

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The developmental processes initiated in the post-Independence period in India enhanced mobility level of its population. According to 1981 census, more than 55 million people accounting for 8.35 per cent of the total population had moved across the state boundary within the country.

However, during the decade 1971-81, share of rural destination migrants in the total migrants in the country declined due to the increasing 'pull' of urban areas. Not only that, the number of female migrants to urban areas also improved significantly.

In the present paper an attempt has been made to analyse patterns of migration in their spatial perspective. The areas of in-and out-migration have been identified by differentiating between the actual growth rate and average rate of natural increase. Areas experiencing out-migration were largely the areas with high density of population, long history of emigration and out-migration, tradition in armed forces, easy access to a metropolitan city etc. Areas of in-migration, on the other hand, were spread over to all the parts of the country and were the areas where demand for labour in different sectors of economy was fast expanding.

The chief objective of the present paper is to comprehend the broad spatial patterns of internal migrations in India. Migration is not only a shift of people from one place of abode to another but also is most fundamental to the understanding of everchanging space content and space relationships in any area (Gosal, 1961, 106). Movement over territories is a characteristic feature of all human populations irrespective of their stage of economic development (Gill, 1981, 105). Bogue (1959, 487) considers it an instrument of cultural diffusion and social integration which yields more meaningful redistribution of population. Smith (1960, 419) talked of its three-fold impact : (i) on the area of in-migration; (ii) on the area of out-migration; and (iii) on the migrants themselves.

However, the spatial movement of people has to be seen in the context of the socio-economic conditions of the area, the pace at which these conditions were changing and the consequences which result from such changing patterns of socio-economic conditions. A comprehensive understanding of migratory ethos of any populace, was, however, contingent upon comprehending (i) the processes responsible for spatial movement of people; (ii) the role played by our developmental strategies in determining the degree of spatial mobility; and (iii) the policies that may be adopted to direct migration-development relationship (Mehta, 1990, 1).

Data Constraints and Methodology

The analysis of internal migrations in India suffers from serious data handicaps. The Census of India does not provide any direct data on migration. It is only with the help of place of birth data that some

idea of magnitude and direction of patterns of migration can be obtained. Although place of birth data have been collected by the Indian census since 1891, yet prior to 1941 census, these data reflected only inter-state migration. The 1941 census, however, did not generate any information on migration. The post-Independence censuses have attempted to fill this data gap to the extent it is possible with the help of place of birth data. For instance, the 1951 census attempted to cover the inter-district migrations while collecting place of birth data. The following censuses of 1961, 1971 and 1981 have tried to improve upon the quality of data by adding such variables like the duration of residence and the rural and urban break up (1961 census), place of last residence (1971 census) and reasons of migration (1981 census).

A brief reference to the handicaps of place of birth data is necessary in Indian situation. The movement of females from the place of their parents' residence to the place of the residence of their spouse at the time of marriage and the customary move-ment of females to the place of their parents' residence at the time of confinement intro-duce serious distortions in the assessment of magnitude of migration in India. Similarly, the difference in the place of enumeration and the place of birth of a person does not give any idea about the number of moves that may have been made by the person during the inter-censal period. These inhe-rent constraints in the use of place of birth data put a question-mark on the utility of such data for migration analysis.

Keeping in view the limitations of such data, an attempt has been made in this paper ; to determine the magnitude of migration in a district by differentiating between the actual rate of population recor-ded by the district during 1971-81 from the average rate of natural increase for the state to which the district belongs, which was obtained by the census differencing method. The districts where actual rate of growth exceeded the average rate of natural increase for the state concerned, have been categorised as areas of net in-migration and the districts where the actual rate of growth fell short of the average rate of natural inc-rease for the state concerned have been categorised as the areas of net out-migration. The actual magnitude of in-and out-migration, however, was determined by the amount by which the actual growth rate deviated from the average rate of natural increase. Using this methodology a map (Fig 1) has been prepared to portray the areas of in- and out migration. Another map (Fig 2), has been prepared to portray the magni-tude of inter-district movement of people within the state of enumeration as reflected by the place of last residence data.

Magnitude of Internal Migration in India

The Indian population has been conside-red as one of the least mobile populations in the world (Davis, 1951, 108 Gosal, 1961,110, Skeldon, 1986, 761). It is so because most of people in the country spend their entire life-span in the native village/town. But for the customary movement of females from the place of their parents' residence to the place of resi-dence of their spouse at the time of marriage, the proportion of total migrants to total population in the country would have been much lower. The factors that have contri-
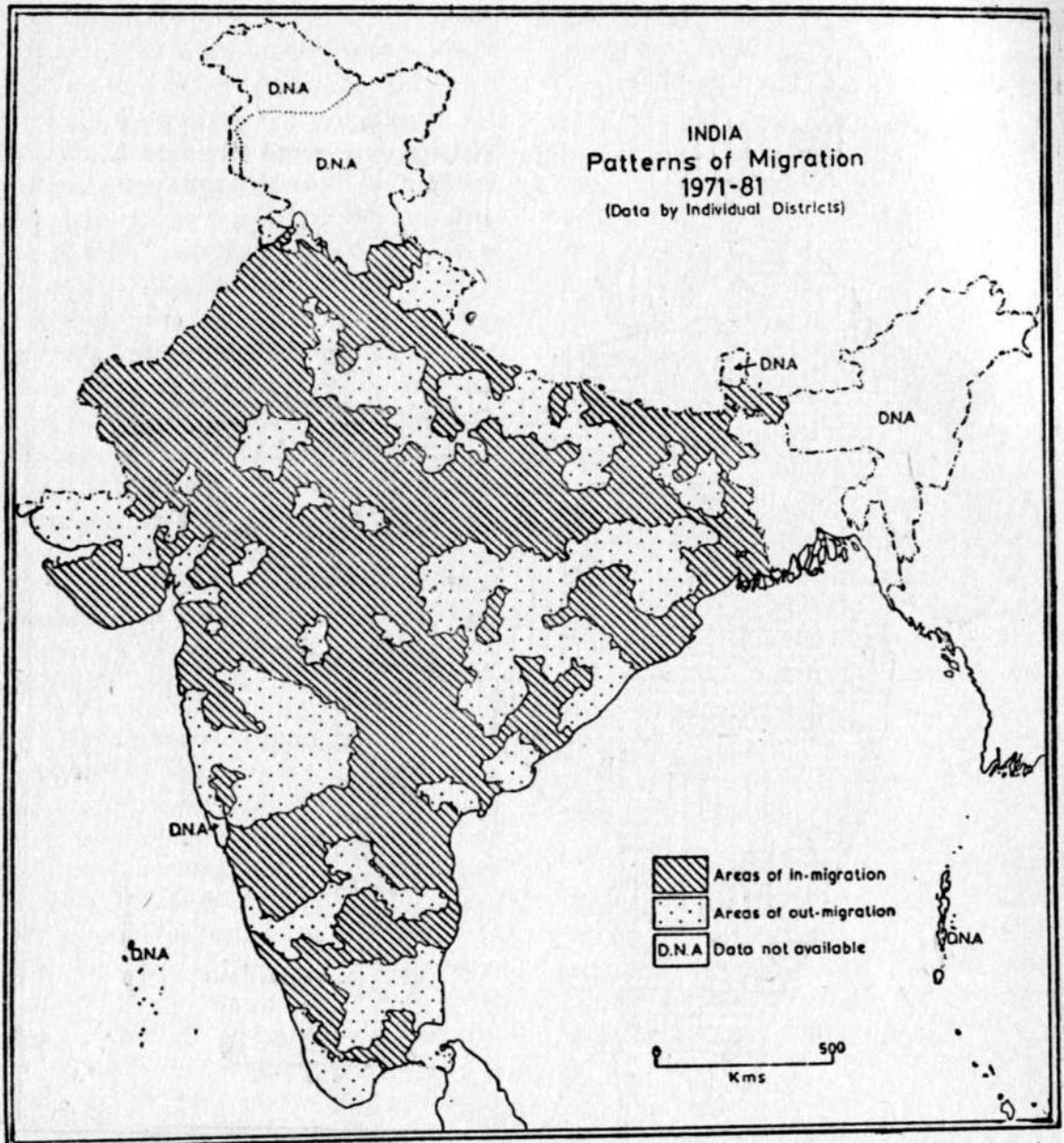
INDIA
Patterns of Migration
1971-81
(Data by Individual Districts)

Areas of in-migration
Areas of out-migration
D.N.A Data not available

Fig. 1

INDIA
Inter-district, Intra-state Migrants
As Per Cent of Total Migrants
1981
(Data by Individual Districts)

Percentage
50
40
30
20
10

D.N.A   Data not available

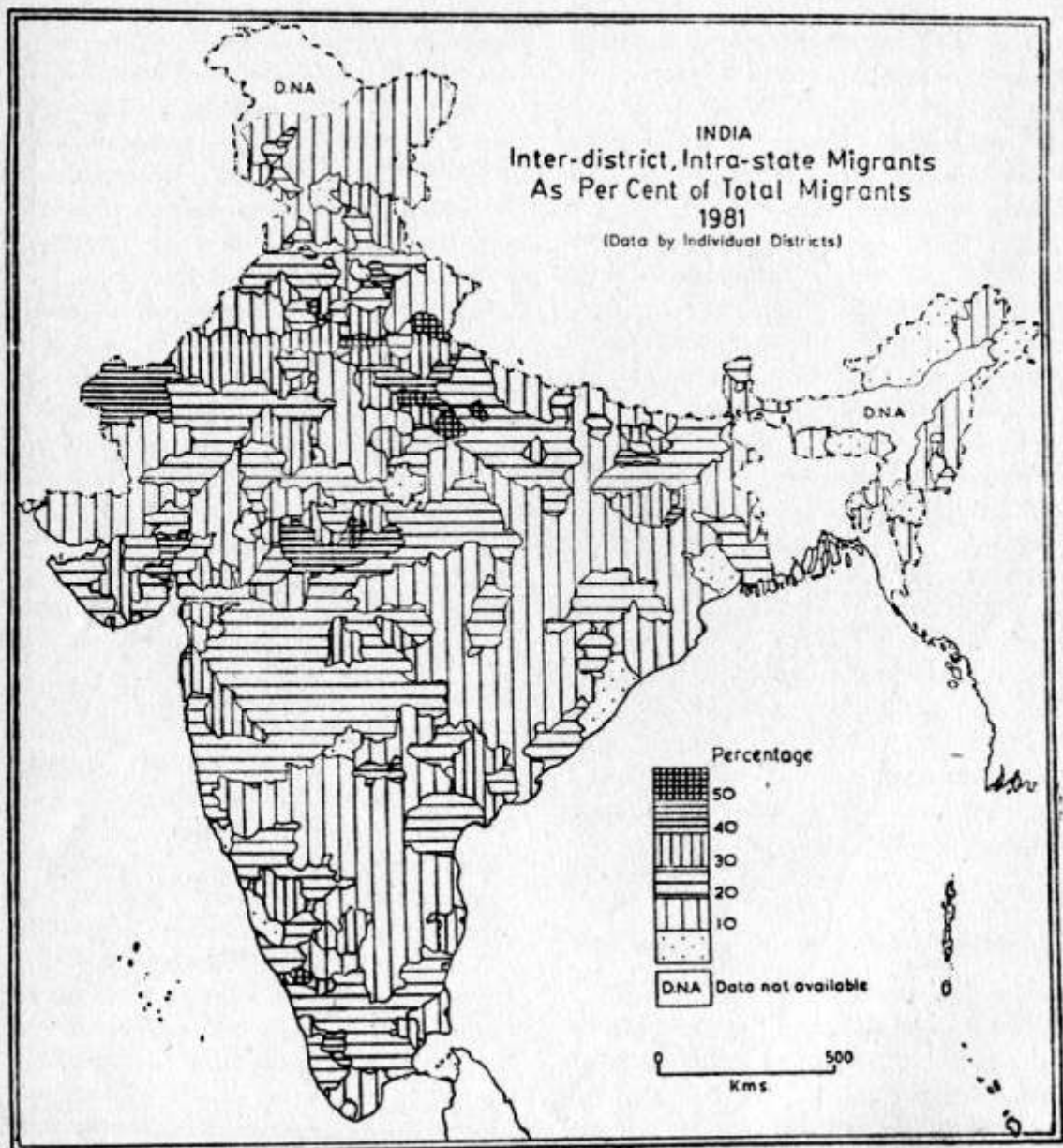0   500
Kms.

Fig. 2

buted to the stubborn immobility of Indian population, in general, include : (i) primacy of agricultural sector in the Indian economy and the long history of settlement and cultivation; (ii) low degree of urbanisation; (iii) practice of early marriage which tends to entrust early adult responsibility which in turn binds the people to the native community; and (iv) vast socio-cultural diversity of the Indian sub-continent. It may be worth mentioning here that the incidence of migration in India would have been much more if the size of administrative units, state/district, was smaller. Most of the Indian states are larger in size than many European countries. The magnitude of inter-state migration in such a scenario also gets subdued simply because of the size of the units involved. Above all, mass illiteracy, general poverty and lack of economic opportunities too have contributed to the stubborn immobility of the Indian population.

The migration scenario in the country seems to have been modified during the post-Independence period significantly. Although life-time migration was not a satisfactory measure of movement, yet the long time span for which it was available provides a useful starting point for examining the trends in migration (Skeldon, 1986,760). The proportion of people registered at a place other than their birth-place was only 10.8 per cent in 1951. The corresponding figure for 1981 was 30.60 per cent, implying a significant change in the migration scenario in the country during the post-Independence period. It is believed that birth place data tend to under-estimate migration as compared with place of previous residence data. For example, if place of previous residence data are taken into account, the proportion of

persons enumerated at a place other than their previous residence in India increases to 31.24 per cent (Table 1). It includes both inter-state and intra-state migration. Map (Fig.2) portrays the magnitude of inter-district migration within the state of enumeration. The proportion of such migrants varied from the minimum of .27 per cent in Goa district of Goa, Daman & Diu to 71.16 per cent in Madras district of Tamil Nadu (Fig 2). Parts of Western Uttar Pradesh, adjacent areas of Haryana, Rajasthan displayed the highest proportion of inter-district migrants.

Compared with 30 years span immediately prior to Independence, that is, 1921-51, this change becomes all the more laudable. During 1921-51, the proportion of people living at a place other than their birth place improved only marginally from 9.8 per cent to 10.8 per cent. Although in terms of percentage, the Indian population still continues to be one of the less mobile populations in the world, yet in terms of absolute numbers it may mean millions of people.

What emerged from the preceding paragraphs was that the free India witnessed significant enhancement in its mobility level when compared with colonial India. Thanks to the developmental processes initiated during the post-Independence period.

Inter-State Migration

According to 1981 census, 55.562 million people accounting for 8.35 per cent of the total population, had moved across the state boundary in the country. Of the various states Nagaland had the largest proportion of inter-state migrants in its population (35.09 per cent). It was follo-

Table 1

India : External, Internal Migrations Based on Place of Previous Residence : 1971-81

Census	Migrants as per cent to Total Population*	Internal Migrants as per cent to All Migrants**	International Migrants as per cent to All Migrants***
1981	31.24	97.03	2.97
1971	30.52	95.50	4.50

Source : Calculated from Census of India (1981) : *Migration Tables*-D-2, Registrar General, India and Census of India (1971) : *Migration Tables*-D-11, Registrar General, India.

*Migrants are defined as those with a place of previous residence other than the place of enumeration.

**Those with a place of previous residence within India.

***Those with a place of previous residence outside India.

wed by Tripura (25.66 per cent), Sikkim (22.15 per cent), Haryana (21.52 per cent) and Punjab (18.17 per cent). Other states where the proportion of inter-state migrants in the population was higher than the national average included West Bengal (11.99 per cent), Himachal Pradesh (11.95 per cent), Meghalaya (10.31 per cent), Maharashtra (9.84 per cent), Rajasthan (9.26 per cent) and Karnataka (8.53 per cent). At the other end of the scale was Jammu & Kashmir with a meagre proportion of 3.68 per cent inter-state migrants in its population. Manipur with 3.74 per cent, Andhra Pradesh with 4.17 per cent, Orissa with 4.93 per cent were also not very far behind Jammu & Kashmir (Table 2).

Thus, the states, that were comparatively small in size, had high proportion of Christian population and displayd high literacy standards, had larger share of inter-state migrants in their populations. By contrast, the big states like Andhra Pradesh, Orissa, Tamil Nadu, Bihar, Uttar Pradesh displayed relatively smaller proportion of inter-state migrants. Jammu & Kashmir which enjoyed special status under Article 370 of Indian constitution which inhibits the permanent settlement of people from other states in Jammu & Kashmir obviously had the lowest proportion of inter-state migrants. Even those who have been recorded as inter-state migrants in Jammu & Kashmir were mostly employees who were stationed temporarily in the state.

In comparison to the states, the union territories which were relatively small in size and which were highly urbanised displayed a high proportion of inter-state migration in their population. Chandigarh, the beautifully planned modern city of India, housing the administrative headquarters of Punjab,

Table 2

India : Inter-State Migration, 1981

State/Union Territory	Gross Migrants as per cent to State/Union Territory's Population	In-Migrants as per cent to Gross Migrants	Out-Migrants as per cent to Gross Migrants
States			
Nagaland	35.09	92.85	7.15
Tripura	25.66	94.85	5.15
Sikkim	22.15	83.97	16.03
Haryana	21.52	58.45	41.55
Punjab	18.17	57.02	42.98
West Bengal	11.99	85.29	14.71
Himachal Pradesh	11.95	45.22	54.78
Meghalaya	10.31	89.51	10.49
Maharashtra	9.84	75.72	24.28
Rajasthan	9.26	46.40	53.60
Karnataka	8.53	52.55	47.45
Madhya Pradesh	7.39	61.25	38.75
Gujarat	6.92	55.03	44.97
Uttar Pradesh	6.19	28.65	71.35
Kerala	5.87	24.16	75.84
Bihar	5.49	34.63	65.37
Tamil Nadu	5.48	45.49	54.51
Orissa	4.93	58.62	41.38
Andhra Pradesh	4.17	40.22	59.78
Manipur	3.74	62.91	37.09
Jammu & Kashmir	3.68	55.91	44.09
Union Territories			
Chandigarh	82.68	86.44	13.56
Delhi	51.90	87.37	12.63
Andaman & Nicobar Islands	48.80	93.95	6.05
Pondicherry	43.14	54.44	45.56
Dadra & Nagar Haveli	28.88	76.14	23.86
Goa, Daman & Diu	26.76	60.39	39.61
Arunachal Pradesh	20.29	97.59	2.41
Mizoram	8.45	80.43	19.57
Lakshadweep	7.48	72.74	27.26

Source : Calculated from Census of India (1981) : *Geographic Distribution of Internal Migration in India, 1971-81*, Registrar General, India.

Note : Population classified by place of birth.

Haryana and Chandigarh, had 82.68 percent of its population as migrant population. It attracted large number of state.capital employees from both the states. Not only that the city witnessed rapid physical expansion during the decade, 1971-81. The large scale construction activity in the city attracted a large number of construction workers not only from the neighbouring states of Punjab and Haryana but also from such distantly located states, such as Tamil Nadu, Orissa, Madhya Pradesh, Bihar, Uttar Pradesh. It was followed by Delhi (51.90 per cent), Andaman & Nicobar Islands (48.8 per cent) and Pondicherry (43.14 per cent). Lakshadweep, the distantly located coral islands, constituted the only union territory which displayed the proportion of migrants to its total population marginally below the national average Delhi, the national capital, also attracted very large number of in-migrants from neighbouring as well as far off states mainly because of its rapidly expanding administrative functions and industry. That is why, about 52 per cent of its population constituted the inter-state migrants. In most of the union territories, inter-state migrants accounted for one-fourth to one-half of their total populations. It was largely because the territories were usually small in size. Moreover, being directly under the central administration, were assured of capital inflow from the centre for varied developmental activities. This was in contrast to mostof the states, which were much bigger in size and where the resource constraints impeded even their normal developmental activities.

Table 2 also indicates the component of in-and out-migration. It was interesting to note that in case of union territories, in-migration was far in excess of out-migration. In most of union territories, in-migrants accounted for 70 to over 90 per cent of the total migrants. Only in case of Pondicherry and Goa, Daman and Diu the in-migrants accounted for 50 to 60 per cent of the total migrants. In case of states also the component of in-migration exceeded that of out-migration in most cases. Such states included Tripura, Nagaland, Meghalaya, West Bengal, Sikkim, Maharashtra, Manipur, Madhya Pradesh, Orissa, Haryana, Punjab, Jammu & Kashmir, Gujarat and Karnataka. The in-migrants accounted for more than 80 per cent of total migrants in case of Tripura, Nagaland, Meghalaya, West Bengal, Sikkim, implying that there was very little out-migration from these states. By contrast, the states that recorded large scale out-migration included Kerala (75.84 per cent), Uttar Pradesh (71.35 per cent), Bihar (65.37 per cent), Andhra Pradesh (59.78 per cent), Himachal Pradesh (54.78 per cent), Tamil Nadu (54.51 per cent) and Rajasthan (53.60 per cent). A large component of out-migrants to total migrants in these states speaks of the strain the resources of these states were experiencing. It may be pointed out that a considerable net out-migration continued to flow from the areas which had been contributing out-migrants since Independence. It implied that migration flows continued during 1971-81 on the similar patterns that were established about 30 years ago.

However, the decade did record a decline in the percentage of inter-state in-migrants to gross-migrants in almost all areas except in the northeast. It indicated

limits to the scope of in-migration in most of the districts. Such a finding was consistent with the findings in other parts of the world which too have observed a decline in the relative role of circulation, as the migration system evolves (Skeldon, 1977, 396-411). It also fits into the framework of mobility transition of Zelinsky (1971, 219-249). India too seems to be experiencing mobility transition, although its precise form varies from one part of the country to another. In some areas circulation continued to be the most predominant type of movement, while in others permanent out-migration was well established. The constraints of data, however, limit the scope of analysis of mobility transition in India.

Migration to Rural Destinations

Since a vast majority of India's population still lives in the countryside, a large proportion of the migrants in the country also continued to have their destinations in the countryside. Of the total migrants in 1981, 65.24 per cent were such who moved from rural to rural areas and 5.96 per cent were such who moved from urban areas to rural areas (Table 3). Thus, about 71 per cent of the total migrants in India had their destination in the countryside. However, during 1971-81, the proportion of migrants having rural destinations seems to have declined. The 1971 census had indicated that over 75 per cent of the total migrants had their destination in the countryside. This decline was a welcome development, implying an increased incidence of rural to urban and urban to urban migration during the decade.

Table 3 reveals that a large proportion of migration to rural destination in India was that of females. It was largely because of the prevalence of patrilocal marriage custom in India, where the females moved from the place of their parents' residence to the place of residence of their spouse at the time of marriage, which invariably was not the same village. However, recently there was an ample evidence to show that the marriage field in India was becoming more and more extensive (Weiner, 1978, 34) with people choosing their marriage partners over longer distances. The factors of improved transportation, increasing education and improving information network may have contributed to this development.

Marriage migration apart, there were other flows of migration to the countryside. Migration of agricultural labourers and movement of people to the newly reclaimed areas for agricultural purposes constitute the most important component of such migrations. The movement of agricultural labourers was partly seasonal and partly permanent. The movement of people to the newly reclaimed agricultural lands took place in specific regions such as the *Terai* in Uttar Pradesh, northern parts of Rajasthan and the Dandakaranaya. The movement of construction workers, particularly to the dam sites and other developmental schemes being carried out in the countryside, also contributed some migration to the rural destinations. These migrants were mostly from rural background. These migrants were the poorest and the least priviledged warranting serious attention of the policy makers.

Thus, about three out of every four migrants in the country had their destination in the countryside. Females out numbered

Table 3

India : Migrants by Place of Birth, 1971-81

Flows	Year	Persons as per cent to Total Migrants	Males as per cent to total Migrants	Females as per cent to total Migrants
Rural to Rural	1971	70.27	16.53	53.74
	1981	65.24	13.30	51.94
Rnral to Urban	1971	15.29	8.02	7.27
	1981	17.60	8.77	8.83
Urban to Urban	1971	8.93	4.31	4.62
	1981	11.20	5.07	6.13
Urban to Rural	1971	5.51	2.02	3.49
	1981	5.96	2.04	3.92

Source : Census of India (1981) : *Geographic Distribution of Internal Migration in India, 1971-81*, Registrar General, India, New Delhi.

Note : Total Migrants in this table exclude unclassified and migrants from abroad.

the males among such migrants, signifying the role of marriage migration. Agricultural labourers, construction workers coming from extremely poor background accounted for a significant proportion of the migrants to the countryside. However, during the decade 1971-81, the share of rural destination migrants in the total migrants in the country declined due to the increasing 'pull' of urban areas.

Migration to Urban Destinations

The migrants that moved from one urban area to the other urban area or from rural area to an urban area, constitute migration to urban destinations, According to 1981 census, 28.8 per cent of the total migrants in India moved to urban destinations (Table 3). The share of rural to urban migrants among such migrants was slightly larger. While 17.6 per cent of the total migrants moved from rural areas to urban areas, the corresponding figure for those who moved from one urban area to another was 11.2 per cent. In contrast to the migrations to rural destinations the incidence of migration to urban destinations increased during 1971-81. The 1971 census had registered about 24.22 per cent of the total migrants having moved to an urban destination (Table 3). It implied an increase of 4.58 per cent in the proportion of migrants to urban destinations during the decade.

Table 4 reveals that while in 1971 the sex ratio of rural to urban migrants was significantly masculine, by 1981 it had balanced itself. It implied that more females than males had moved to urban destinations during 1971-81. No wonder, the urban sex ratio in the country improved from 859 to 880 during this period.

It was interesting to note that not all the migrants to urban destinations moved for reasons of employment. Only about 18 per cent of such migrants had moved for employment. Those who moved to urban destinations for purposes of education accounted for 3 per cent of the migrants to urban areas. In case of migration to urban destinations also the

Table 4

India : Sex Ratio by Type of Migration, 1971-81

Year and Type	Sex Ratio of migrants
1981	
Rural to Rural	2439
Urban to Rural	1266
Rural to Urban	1000
Urban to Urban	1111
1971	
Rural to Rural	2222
Urban to Rural	1136
Rural to Urban	840
Urban to Urban	926

Source : Calculated from : Census of India 1981 : *Migration Tables*-Table D-2, Registrar General, India ; and Census of India (1971) : *Migration Tables* - Table D-11, Registrar General, India.

component of marriage migration was high being 28.6 per cent (Table 5). Those who accounted for one-third of the total migrants in the urban areas moved to the urban destinations as family constituents. About 20 per cent of the migrants to the urban destinations moved due to other miscellaneous reasons.

Rural to urban migration in India was considered to be the major movement of people. It affected significantly the growth rates of rural and urban populations during 1971-81. While the rural population in the country recorded a growth rate of 19.68 per cent during the decade, the urban population grew up 46.38 per cent, signifying a considerable rural to urban migration in the country. Table 3 also reveals that the component of urban to urban migration in India was also considerable. It implied relocation of urban populations from smaller towns to bigger cities. Faster growth of large cities and stagnation of small towns has been indicated by various studies in India. The process of migration up the hierarchy that had begun in India during the decade 1951-61 seems to have continued until 1981 (Bose, 1980,109-116). Mehta (1990, 4) also speaks of further sharpening of direction-bias in favour of big cities in the general urbanward migration flows. In most of the million-plus cities, migrants constituted about one-third to one-half of their total population (Census of India, 1988, 121).

Though rural to urban migration was not the most important type of recent migration flows in the countries like India, yet it played an important role in the growth of cities and in the composition of their populations. It has been estimated that

Table 5

India : Migrants by Reasons for Migration, 1981

Reason	Total	Rural	Urban
Marriage	51.51	58.18	28.61
Family moved	19.23	16.17	30.47
Employment	10.67	9.11	18.15
Education	2.23	2.08	3.13
Others	16.36	14.46	19.64
Total	100.00	100.00	100.00

Source : Census of India (1981) : *Geographic Distribution of Internal Migration in India, 1971-81*. Registrar General, India, New Delhi.

about one-third of the total urban growth in India has been due to migration (United Nations. 1984, 199). Also though the migration to urban centres may not be the most important component in the city growth, yet it has a profound effect on the urban population.

Unlike the migrants to rural destinations, the migrants to the urban destinations moved more for reasons other than marriage. Only one out of every four such migrants moved to the urban destinations for marriage purposes. Employment, family movement, education were the other factors that had brought them to urban areas. Furthermore, during 1971-81, not only the share of urban destination migrants in the total migrants in the country increased but also the number of females moving to urban areas improved significantly. Thus, the incidence of male-selectivity among urbanward migrants declined

considerably during 1971-81 and more females moved to the towns than males during this period.

Spatial Patterns of Migration

Indian population has often been considered as a less mobile population (Davis, 1951, 108), where a vast majority spends its entire life span at its birth place. Though in terms of proportion, the migrants in India may appear to be insignificant, yet in terms of absolute numbers they make up an impressive figure. There were over 207 million people in the country, according to 1981 census, who had moved from one place of abode to another by the time of enumeration. Their number far exceeded the total population of many developed countries. Of these, over 55 million people had moved across the state boundaries within the country. The number of such inter-state

migrants would have been much bigger but for the large size of the Indian states. It may be worth mentioning here that the size of many Indian states was much bigger than many European countries.

Among the various factors that stimulate people to move from one place of abode to another, the economic factors were, of course, the most vital. In the event of strong economic 'push' or 'pull', the social, linguistic and cultural considerations get relegated to the secondary significance. In Indian context, the chief 'push' factors operating in the areas of out-migration include the small and declining size of agricultural landholdings, low per capita agricultural productivity, low degree of diversification of economy, chronic population pressure, limited possibility of extending the cultivated area, low degree of urbanisation etc. By contrast, in the areas of in-migration, the chief 'pull' factors included growth of urban-industrial concentrations, reclamation of agricultural land, developmental activities such as multi-purpose projects, extension of general agriculture, plantations, mining etc.

With a view to identifying the areas of in-migration and the areas of out-migration, an attempt has been made to develop a map (Fig. 1) by differentiating between the actual rate of growth recorded by the district during 1971-81 and the rate of natural increase for the state concerned, arrived at by census differencing method. The underlying assumption, here, was that there was little difference in the rate of natural increase within the same state. The map so developed has been considered to be better than the map portraying the percentage of persons born elsewhere in the district of enumeration (Fig. 2) because while the latter gives the static picture for the census year 1981 while the former depicts the trend during the decade under review (1971-81).

Fig. 1 reveals that the areas receiving in-migrants were far more widespread than the areas sending out-migrants. In about two-thirds of the districts, the rate of actual increase exceeded the rate of natural increase during the decade. Hence, these have been identified as areas of in-migration. By comparison, the rate of actual increase fell short of the rate of natural increase in the remaining one-third districts, which have been classified as areas of out-migration. However due to the non availability of data pertaining to natural rate of increase (obtained by census differencing method) for northeastern states, as well as for Jammu & Kashmir and Himachal Pradesh, the areas of in-and out-migration could not be identified in these tracts.

Areas of out-migration

In all, 118 districts in the country have been identified as areas of out-migration according to 1981 census. These districts largely fall in the states of Kerala, Tamil Nadu, Karnataka, Maharashtra, Andhra Pradesh, Orissa, Madhya Pradesh, West Bengal, Bihar, Uttar Pradesh, Punjab and Gujarat. Not that the rate of natural increase was far in excess of the rate of actual increase in all these districts, the degree of difference between the two types of rates varied from one part of the country to another. The comparison between the Figs. 3 & 1 clearly brings out that the difference between actual and natural growth rates in case of the districts falling in the entire Gangetic

plain was only marginal. Similar was the case with Dandakaranya region. However, districts in Kerala, Tamil Nadu, Karnataka and Maharashtra recorded significantly low actual growth rate signifying considerable out-migration from them. So was the case with the districts experiencing out-migration in the states of Orissa, West Bengal, Gujarat Punjab and the hill districts of Uttar Pradesh.

The districts in Kerala identified as areas of out-migration recorded a growth rate of only 10 to 20 per cent in their population. The rate of natural increase in Kerala was in the neighbourhood of 19 (Table 6). It signifies that in some of the districts of the state even the natural increase was being wiped out by way of out-migration. Since the sex ratio in these districts improved further during the decade it indicated male-selectivity among the out-migrants from these districts. The state of Kerala has been experiencing out-migration for quite sometime due to acute population pressure upon its limited resources.

Tamil Nadu also has been an area of out-migration for quite sometime. The districts identified as areas of out-migration recorded a growth rate of 10-20 per cent during the decade. Since the sex ratio of most of these districts recorded a decline during the decade, it signified family out-migration probably of the people whose earning hands had moved out earlier. Both Kerala and Tamil Nadu have been sending out-migrants to long distances. Out-migration from these states has largely been of educated persons in search of jobs in the non-agricultural sector, though some incidence of out-migration of illiterate families

for purposes of general labour also cannot be ruled out, particularly from Tamil Nadu.

Table 6

India : Estimated Rate of Natural Increase for Selected States, during 1971-81 (Census Differencing Method)

State	Rate of Natural Increase
INDIA*	22.25
Rajasthan	28.70
Haryana	25.49
Uttar Pradesh	24.74
Gujarat	23.98
Karnataka	23.70
Madhya Pradesh	22.03
Bihar	22.07
Punjab	21.55
Andhra Pradesh	21.29
Maharashtra	20.69
West Bengal	20.03
Kerala	18.29
Orissa	17.17
Tamil Nadu	16.42

Source : Calculated from : Census of India (1981) : *Estimates of vital Rates for the Decade 1971-81, Analysis of the 1981 Census Data,* Paper 1 of 1985, Series 1, India, Registrar General, India.
*Excludes Assam.

The districts identified as areas of out-migration of Karnataka and Andhra Pradesh bordering Tamil Nadu recorded a moderate growth of population ranging between 20 and 25 per cent. The rate of natural increase in their case was also between 20 and 25. It implied only a marginal excess of natural increase over the actual increase. Thus, these

INDIA
Growth of Population
1971-81
(Data by Individual Districts)

Percentage
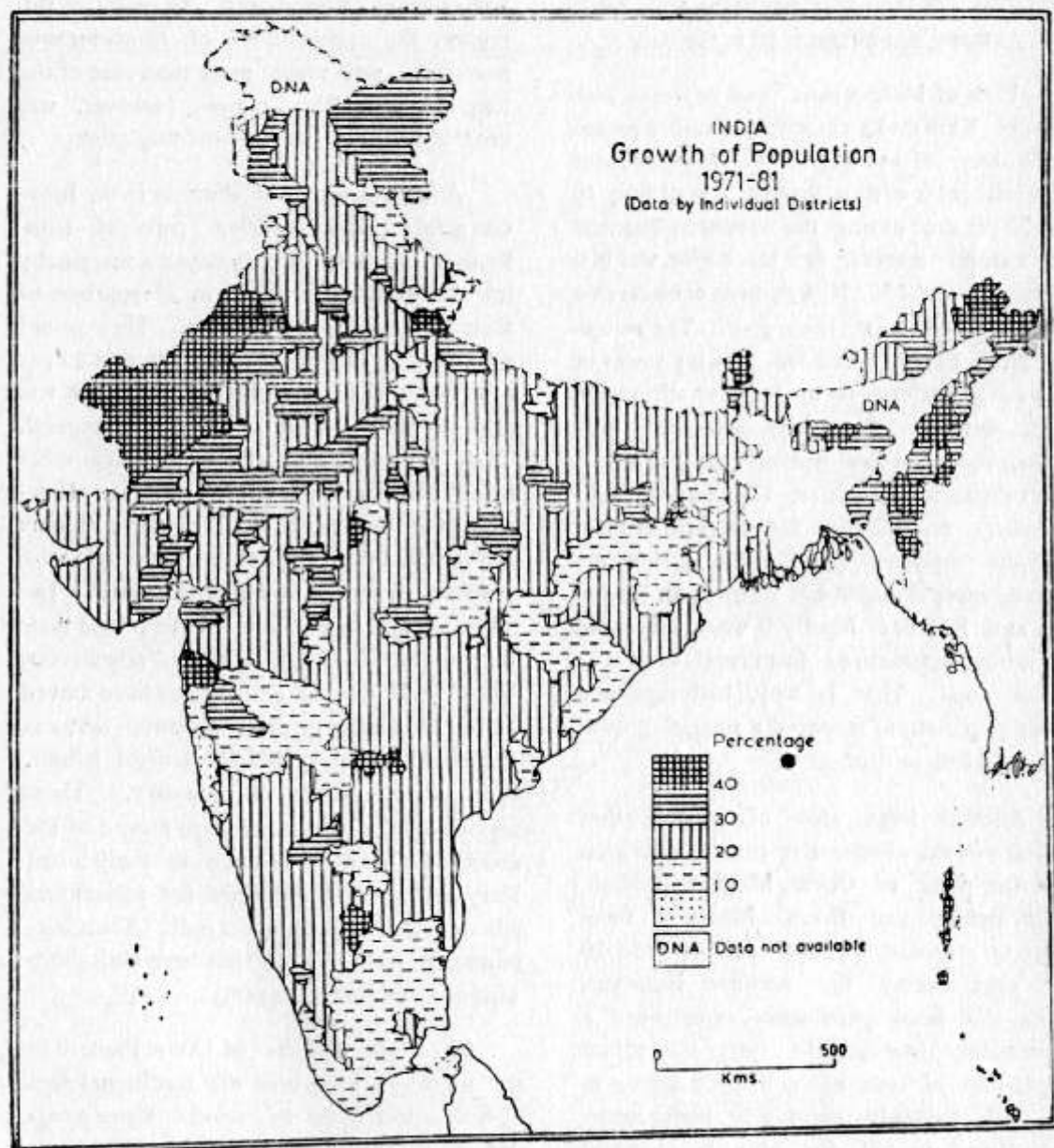40
30
20
10
DNA Data not available

500
Kms.

Figure 3

districts were not the prominent areas of out-migration. However, the sex ratio improved marginally in their case signifying male-selectivity among out-migrants from the area.

Parts of Maharashtra and adjacent districts of Karnataka constitute another prominent area of out-migration. Most of these districts recorded a growth rate of only 10 to 20 per cent during the decade. The rate of natural increase for this region was between 20 and 25. It signified considerable out-migration from the region. The metropolis of Bombay and the growing towns of Pune, Bangalore seem to have attracted a large number of workers from this belt. Thus, the migration in their case was only a short-distance migration and largely male-selective. No wonder the sex ratio of these districts improved significantly during the decade except the coastal districts of Ratnagiri and Kolaba. Mostly it was a migration to urban destinations from rural as well as urban areas. That is why, both rural and urban populations recorded a sluggish growth in most of these districts.

Another large area of out-migration emerges in the northeastern peninsular region covering parts of Orissa, Madhya Pradesh, West Bengal and Bihar. Most of these districts recorded a growth rate of 10 to 20 per cent during the decade. However, while the rural population experienced a depressingly low growth rate, the urban population of some of the districts falling in this belt recorded excessively high growth rate (Figs. 4 and 5). May be that low proportion of urban population resulted in its impressive percentage growth rate. In terms of absolute numbers it may not be very impressive. The sex ratio in most of these districts also declined implying family movement of the people where the earning hands had already moved out. In case of this region, the probability of short-distance movement was much more than that of the long-distance. This region, however, was not the traditional area of out-migration.

A large number of districts in the Indo-Gangetic plain covering parts of Uttar Pradesh and Bihar also displayed a marginally low rate of actual increase, in comparison to their natural rate of increase. Their actual growth rate ranged between 20 and 25 per cent while the natural rate of growth was also in the vicinity of 24-25 per thousand. Thus, it was a case of only marginal difference between the two types of rates. However, the out-migration from these districts has largely been of landless labourers for the purposes of agricultural/general labour. The out-migrants from this belt have sought their destinations both in rural and urban areas. Those seeking urban destinations have moved either to Delhi or other industrial towns in the neighbouring region for general labour, construction work or industry. Those seeking rural destinations have moved to the areas of Green Revolution in Punjab and Haryana where the demand for agricultural labour provided the greatest pull. Thus, out-migration from this belt has been both short-distance and long-distance.

The hill districts of Uttar Pradesh in the northwest have been the traditional area of male-selective out-migration. These recorded a growth rate of 10 to 20 per cent during the decade which was significantly below the rate of natural increase. The continuing pressure of population in the context of little developmental activities in
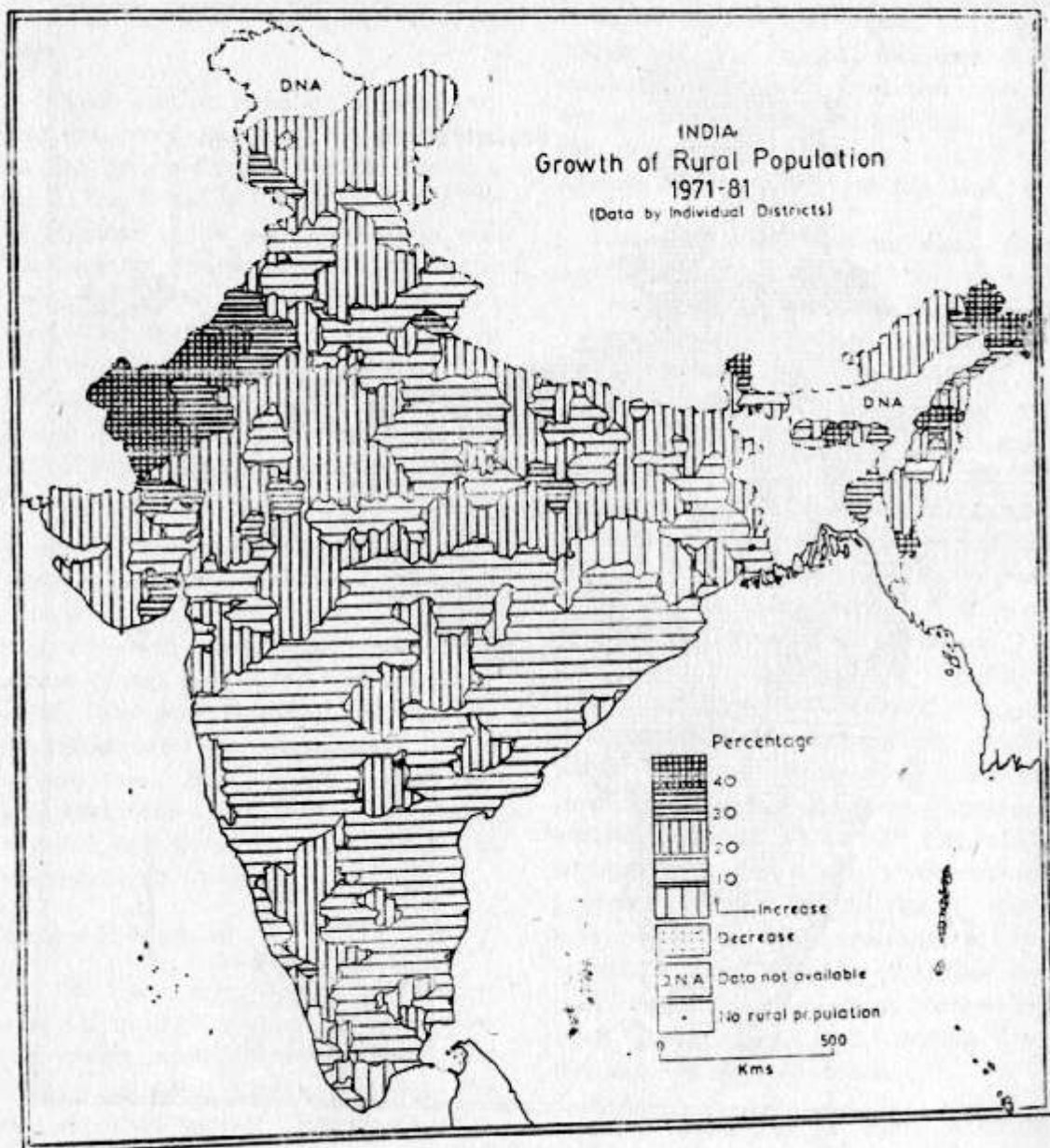
INDIA
Growth of Rural Population
1971-81
(Data by Individual Districts)

Percentage
40
30
20
10
Increase
Decrease
DNA Data not available
No rural population

0 — 500
Kms

Figure 4

INDIA
Growth of Urban Population
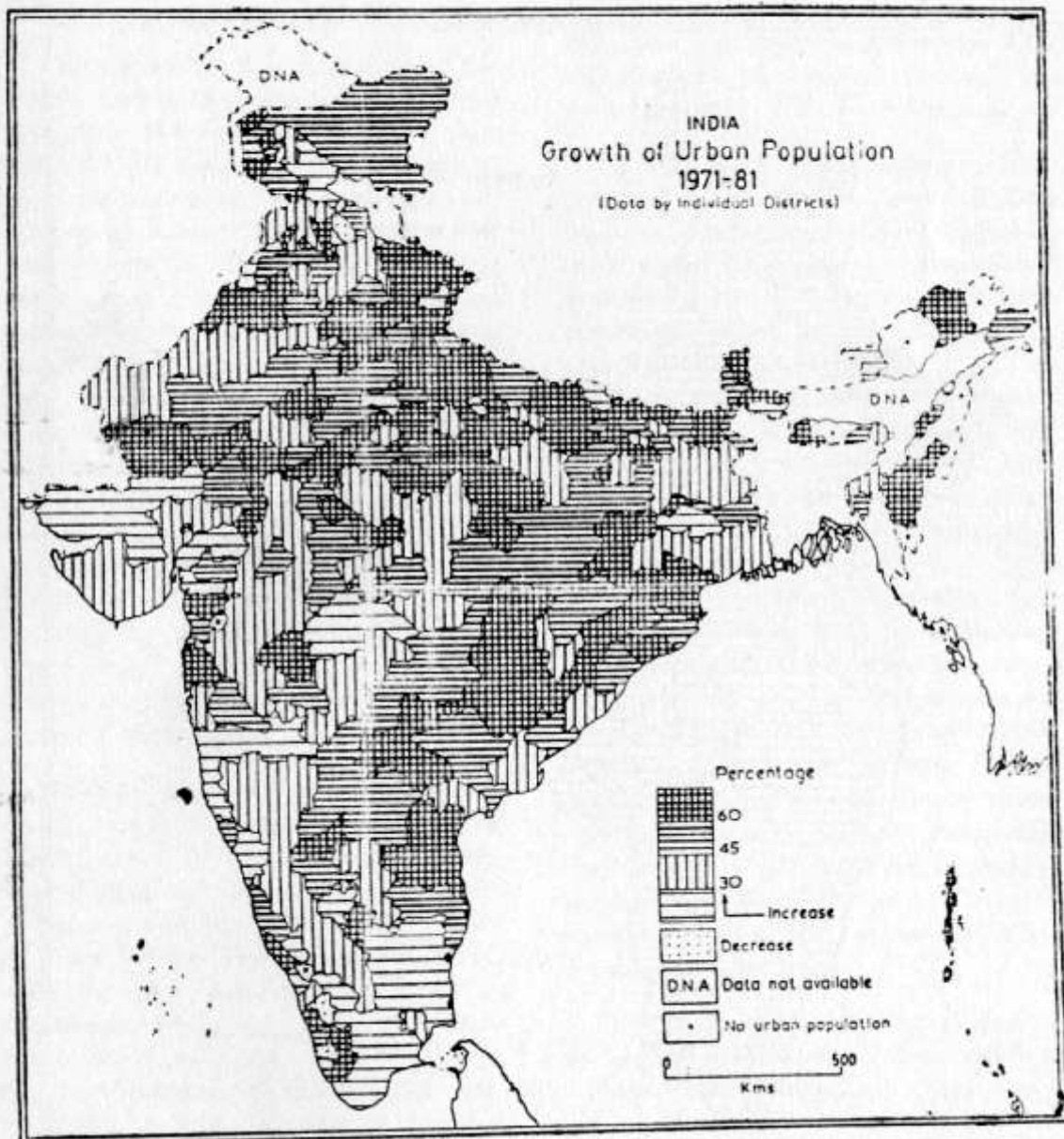1971-81
(Data by Individual Districts)

Figure 5

the region has been the chief factor pushing the people out from the region. The tradition of the hill people in the armed services has also attracted the people from the region.

Some districts recording excess of out-migrants over in-migrants were also scattered in the states of Punjab, Gujarat, Rajasthan etc. The Rann of Kachchh region in Gujarat due to its poor local resource base has been the traditional area of out-migration. Punjab, on the other hand, has had a long history of emigration and out-migration due to squeezing size of its agricultural landholdings. Above all, the people in Punjab have developed a long tradition in armed services. So has been the case with Rajasthan.

Thus, areas experiencing out-migration were, by and large, the areas with high density of population, long history of emigration and out-migration, tradition in armed forces, easy access to a metropolitan city etc. However, the rate of natural increase was comparatively low in out-migration areas located in the peninsular India. The out-migration areas of the Indo-Gangetic plain displayed relatively higher rate of natural increase.

Areas of In-migration

The areas experiencing in-migration were far more wide-spread than the areas experiencing out-migration. In 208 districts, the rate of actual increase exceeded the rate of natural increase. Broadly speaking, the areas experiencing in-migration had low to moderate density of population. In majority of such districts, the density was less than 150 persons per square kilometre.

However, in some districts, the density ranged between 150 and 350 persons per square kilometre. The rate of actual growth of population varied greatly from 20 to over 40 per cent (Fig. 3). The incidence of in-migration, thus, varied from one part of the country to another depending upon the degree by which the actual rate deviated from the natural rate of increase.

Although areas of in-migration were spread over to all parts of the country, the northwestern region covering parts of Punjab, Haryana, Rajasthan etc. emerged as one of the most prominent areas of in-migration. This region, of recent, had become the chief attraction for agricultural workers from far off areas due to increasing demand for agricultural labour. While urban centres of the region received large scale in-migrants from local rural hinterland, the in-migration to rural areas was largely from long distances. The developments in the field of agriculture (the Green Revolution), increasing degree of commercialisation of agriculture, accelerating industrial (agro-based) activity, expanding household industries, increasing general construction activity, expanding administrative services and transportational network, were some of the factors which have contributed to in-migration to this region (Chandna, 1989, 54). There has also been considerable in-migration of scheduled caste population as was evident from their rapid growth in the region.

The central parts of India covering large parts of Madhya Pradesh and eastern Maharashtra also recorded in-migration. Some incidence of in-migration, here, was attributable to reclamation of new agri-

cultural land and settlement of scheduled caste population (Chandna, 1989, 54-55). It was largely a short-distance migration specifically from the neighbouring areas. Both rural and urban areas in the region recorded in-migration.

In the Kachchh and Kathiawar region the urban areas recorded higher incidence of in-migration than the rural areas. It implied that there was some incidence of rural to urban migration at local level. Gujarat was one of the highly industrialised states in the country. It witnessed expansion and growth of industries especially of petro-chemicals and cotton textiles. This stimulated rural to urban migration in the region. Such a migration did have an element of sex-selectivity.

The growth of mining activity and the emergence of associated industries in the Damodar valley, the north Orissa plateau and the adjacent areas of Bihar as also in parts of Rajasthan, Madhya Pradesh and Gujarat did generate some in-migration at local level. Migration to the mining areas has been on the increase ever since Independence. This migration to mining areas was usually short-distance type. However, the major manufacturing areas located in the chief mining belts did attract migrants from long distances as well.

The in-migration to the southern parts of peninsular India covering Tamil Nadu, Karnataka, Andhra Pradesh etc. was largely of short-distance type. Both rural and urban areas in the region attracted in-migrants. The river basins where provision of irrigation had facilitated agricultural development did attract migrants from the neighbouring coun-tryside. Growing industries in the urban areas, on the other hand, attracted industrial workers to the towns.

Thus, in-migration was characteristic of those areas where (i) the demand for agricultural labour was increasing; (ii) the degree of commercialization of agriculture was increasing ; (iii) the new agricultural lands had been reclaimed ; (iv) the mining activity had accelerated ; and (v) the industrial-urban centres were growing rapidly.

Summing Up

Although Indian population was not one of the more mobile populations, yet at the time of 1981 census over 200 million people in India were enumerated at a place other than their last residence. About one-fourth of these migrants had moved across the state boundaries, while the remaining three-fourths had moved within the state of enumeration. The magnitude of inter-state migration was large in case of small states and vice-versa. While Tripura, Nagaland, Meghalaya, West Bengal, Sikkim etc. received large number of in-migrants, Kerala, Uttar Pradesh, Bihar, Andhra Pradesh, Himachal Pradesh, Tamil Nadu etc. contributed the bulk of out-migrants.

On an average, seven out of ten migrants in the country moved to rural destinations in contrast to only three migrants moving to an urban destination. It explodes the myth that a large bulk of migration in the developing countries was constituted by rural-urban migration. In India, as many as 65 per cent of the total migrants, recorded at the time of 1981 census, had moved from one rural area to another rural area, implying that rural to rural migration constituted the major

component of internal migrations in India. Much of this migration was socially rooted migration (marriage migration) and had little to do with economic motivation. Only ten per cent of the migrants to rural destinations had moved for employment purposes.

Migrations to urban destinations, in India had comparatively higher element of economic motivation than the migrations to rural destinations which were dominated by socially-rooted marriage migration. Both the rural 'push' and the urban 'pull' in the former case provided the economic motivation. Considered in this context, rural to urban migration formed a vital segment of the migration process. How far the rural-urban migration was a manifestation of rural population explosion or a sad reflection of the backwardness of our rural economy was not an easy question to answer. The metropolitan cities were the chief recipients of the migrants to urban destinations originating both from rural and urban areas alike. The unprecedented growth of urban slums and the deterioration in the quality of urban life were the sad reflections of the incapability of our metropolitan cities to provide full employment to these in-migrants. How far was it advisable to permit the continuation of such metropolitan-based urbanisation may be a difficult question to answer. Diffusion of industries to the district headquarters may perhaps effect the desired change in the direction of migration in India.

The spatial mobility patterns in the country do not seem to have undergone any significant modification in terms of both direction and magnitude over the past century or so. The pockets of chronic population pressure have not witnessed any significant improvement in their population-resource nexus, large-scale out-migration notwithstanding. The continuing massive out-migration from these backward areas has failed to provide any relief to these states, in terms of pressure on their resources. It signified that out-migration was no solution. Instead, a substantial restructuring of society and economy was perhaps essential to mitigate the regional inequalities in population-resource relationship.

In spatial perspective, areas of in-migration were more wide-spread than the areas of out-migration. The areas that experienced out-migration were those which suffered from chronic population pressure due to continuing high density of population and little development of both agricultural and industrial sectors. By comparison, the areas experiencing in-migration were those where a spurt in the demand for agricultural labour was registered, the agriculture had attained a high degree of commercialisation, the new agricultural lands were reclaimed, mining activity had been accelerated, transportational network had been strengthened and the large industrial-urban centres were past expanding. These presented a contrast to the areas of out-migration which were not only agriculturally backward but also their economy was stagnant.

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GROWTH OF RURAL POPULATION :
A CASE STUDY OF PATIALA
DISTRICT, PUNJAB

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ABSTRACT : Based on the census data, the present paper focuses on patterns of rural population growth in the Patiala district during 1951-81. The striking spatial variations in growth rate were associated largely with migration differentials in the study area. Similarly, there were wide differentials in the population growth rates between scheduled castes and non-scheduled castes and among different religious communities. The proportion of different castes and communities to the total population changed due to their uneven growth rates.

Introduction

Rapid population growth ranks high among the various population problems of the Punjab. "If any theme dominates the population geography of Punjab it is surely that of vigorous accelerating change" (Gosal and Ojha, 1964 p. 51). Accordingly, the present study is devoted to the analysis of the patterns of growth of rural population in the Patiala district.

Extending from 29°—49' and 30°—47' north latitude and 75°—58' and 76°—54' east longitude, Patiala district covers a total area of 4584 sq. kms. Located in the southeast of the Punjab state, the Patiala district was divided into five tahsils in 1981 viz. Fatehgarh Sahib, Rajpura, Nabha, Patiala and Samana*. There were 1470 villages and 13 towns in the district. Topographically, it is an alluvial plain sloping from northeast to southwest having the maximum altitude of 278 metres above

mean sea level near village Nodali in Rajpura tahsil and the minimum of 230 metres near village Jakhar in Samana tahsil. The seasonal stream Ghaggar is the main drainage line in the study area. Flowing from northeast to southwest, the Ghaggar traverses the southern parts of the district. The study area is characterised by a continental type of climate. Agriculture, the main economic front of the rural population, is well supported by canal and tubewell irrigation facilities.

The study was handicapped by the non-availability of data at village level for births, deaths and migration. Secondly it was not possible to trace the population growth trend prior to 1951, because of the paucity of village level data for the earlier decades.

Growth of Rural Population

The rural population of the Patiala district increased with a stupendous net

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*Fatehgarh Sahib has become a new district of Punjab with effect from April 13, 1992.

growth rate of 123.61 per cent (state average 69.30 per cent) during 1951-81 (Table 1). It brought up the actual population number to 11,04,603 persons from mere 493,967 persons in 1951. If this actual increase of 610,636 persons is equitably distributed over the total rural area (4473.7 sq. Kms.) of the Patiala district, it gives an addition of 137 persons per sq. km. With this addition, the rural population density reached to 247 persons per sq. km. approximating the corresponding state average for 1981.

A close scrutiny of decadewise population growth rates revealed considerable variations since 1951 (Tabel 1). During 1951-61, Patiala district registered the highest growth rate (42.69 per cent) in the state. It was mainly pushed up by in-migration from Sangrur, Ambala, Ludhiana and Amritsar districts. The permanent allotment of land to the displaced persons in lieu of the land that they had left in Pakistan and availability of cheaper agricultural land were the main factors stimulating in-migration during 1951-61. Although the decade 1961-71 witnessed a sharp decline in the rural population growth in comparison to the previous decade, yet the growth rate (26.93 per cent) for the Patiala district was notably higher than the state average (20.60 per cent) during the same period. The next decade again recorded a higher growth rate of 23 46 per cent as compared to the state average of 17.48 per cent. So, the rural population growth of Patiala district (123.61 per cent) was 54.31 per cent higher than that of Punjab (69.30 per cent) during 1951-81. The role of migration in marking spatio-temporal variations emerged very clearly as such a big difference in the growth rates was not a result of natural increase. The availability of cheap agricultural land and the permanent allotment of land to the displaced persons from Pakistan were the main pull factors for the in-migrants to the Patiala district.

Rural Population Growth By Religion

The various religious communities differ perceptably in terms of their demographic response in the study area during 195 1-81 (Table 2). The Sikhs and the Hindus constitute about 98 per cent of the total rural population of the Patiala district. The Sikhs accounted for 56.94 per cent in 1951 and their proportion

Table 1

Patiala District : Percentage Growth of Rural Population, 1951-81.

District/State	1951-61	1961-71	1971-81	1951-81
Patiala	42.69	26.93	23.46	123.61
Punjab	19.47	20.60	17.48	69.30

SOURCE : Census of India, 1981, *Punjab, General Population Tables and Primary Census Abstract*, Part II-A and II-B, p. 20.

Table 2

Patiala District : Percentage Growth of Rural Population by Religious Communities, 1951-81.

Religious Communities	1951-61	1961-71	1971-81	1951-81
Sikhs	47.28	32.41	30.26	154.06
Hindus	34.76	20.25	09.28	77.11
Muslims	116.46	25.12	61.87	338.46
Christians	144.50	42.78	43.70	401.73

SOURCE : Computed from (i) Census of India, 1961 *Punjab, General Report*, Vol. XIII, Part I-A (i), pp. 421-438.

(ii) Census of India, 1971. *Punjab, Distribution of population by Religion and Scheduled Castes*, Part V-A, pp. 30-31.

(iii) Census of India, 1981, *Punjab- Household Population by Religion of Head of Household*, Paper I of 1984, pp. 32-35.

went up 64.69 per cent to total population in 1981 due to considerable in-flow of these people during 1951-81. Their growth rate was 154 06 per cent during 1951-81, which was double than that recorded for the Hindu community for the same span of thirty pears (Table 2).

The higher growth rate of Sikh population was associated with a set of factors. During 1951-61, the permanent allotment of land to the displaced persons from Pakistan pushed up the growth rate of Sikh population as majority of the land allotees were Sikhs. The availability of cheap agricultural land in the rural areas of the Patiala district particularly in the Ghaggar flood plain region attracted a large number of Sikh farmers from the other parts of the Punjab. At the time of 1981 Census, the religion of the head of the house-

hold was recorded. "Owing to the new method of taking count regarding religious affiliations, all the contract agricultural migrant labourers from other states who invariably happened to be Hindus, working in the Sikh household were counted as Sikhs resulting in inflation of growth rate of this community. Conversely. this phenomenon has relatively depressed the growth rate of the Hindus in rural areas" (Gill, 1987, p.69). Moreover, in some cases non-Sikh families of lower castes adopted Sikhism. Besides, the Sikh population was relatively less involved in rural-urban migration in the district.

The Hindu population experienced the lowest growth rate among all the religious communities of the district. It was mainly because of their migration to the urban areas. It was better trading opportunities in

towns and a mild preference among Hindus to reside in urban areas mainly determined their slow growth of population in the study area. The method with which the religion of the head of the household was ascertained at the time of 1981 census, also depressed the growth rate of Hindu population. Because of relatively lower growth rate of Hindus, their proportion to the total rural population of the district had came down to 33.33 per cent in 1981 from 42.09 per cent in 1951 (Table 3)

Table 3

Patiala District : Population of Different Religious Communities to Total Rural Population.

Religion	1951	1961	1971	1981
Sikhs	56.94	58.76	61.03	64.69
Hindus	42.09	39.75	37.48	33.33
Muslims	0.88	1.35	1.32	1.74
Christians	0.07	0.12	0.13	0.16

SOURCE : Computed from the same sources mentioned under Table 2.

Muslim population increased its share to the total population following explosive growth rate of 338.46 per cent during 1951-81. The growth rate of 116.46 per cent during 1951-61 was associated with the fact that many Muslim families had returned who had crossed over to Pakistan or other parts of the country in wake of communal strife in 1947. In-migration of labourers from U.P. and Jammu and Kashmir also enhanced their growth rate in all the decades.

Christian population increased at the highest growth rate of 401.73 per cent during 1951-81. As they accounted for only 0.16 per cent of the total rural population, their growth rate did not make much difference for the overall growth of rural population in the district. Similarl y, Jains and Buddhists were not of much significance due to their almost negligible share to the total rural population of the study area.

Growth Differences By Caste Groups

The term 'Scheduled caste' was first time used by the Government of India Act 1935 in which certain depressed classes were classified as scheduled castes in 1936 (Census of India, 1971, pp. 348-349), This weaker section of population also stands distinguished in recording higher growth rate as compared to that of the non-scheduled castes population in the Patiala district during 1951-81 (Table 4). The difference of 58.36 per cent in growth rate of scheduled castes population and non-scheduled castes population within thirty years is really precarious.

The relatively higher growth rate of scheduled caste population was the result of both higher fertility was well as in-migration from outside the state for labour purposes. The reason for their higher fertility lies in their socio-economic backwardness. Consequent upon higher growth rate of scheduled castes population, their share had gone up to 29.69 per cent from 22.4 per cent during 1961-81.

Spatial Patterns of Growth of Rural Population

There were notable spatial variations in the growth of rural population in the

Table 4

Patiala District : Percentage Growth of Rural Scheduled Castes and Non-Scheduled Castes Population, 1951-81.

Category	1951-61	1961-71	1971-81	1951-81
Scheduled Castes Population	50.43	35.03	32.38	168.90
Non-Scheduled Castes Population	40.46	24.42	20.46	110.54

SOURCE : (i) Census of India, 1971, *Punjab Central Report*, Part I-A pp. 348-349.

(ii) Census of India, 1981, *Punjab, General Population Tables and Primary Census Abstract*, Part II-A and Part II-B, pp.20,192-193.

Patiala district during 1951-81 (Map 1). In such a small geographical area, the intra-district variations in the rate of natural increase cannot be worthy of note. So the highly contrasting growth rates can be related to patterns of migration. A close look at the map delineating percentage growth rate during 1951-81 helps us in distinguishing four types of areas.

(i) Areas of relatively rapid growth of rural population

About 36 per cent villages out of 1426 inhabited villages of the Patiala district registered growth rate above 150 per cent during 1951-81 and have been designated as the areas of rapid growth of population. In 16 per cent villages, growth rate was more than 250 per cent. The increase in population density was equally striking with 38 per cent villages adding more than 150 persons per sq. km. within thirty years (Fig. 2).

The Ghaggar flood plain region, particularly Samana and Patiala tahsils registered exceptionally high rate of population growth due mainly to sizeable in-migration from various parts of the Punjab and its neighbouring states. The factors which favoured in-migration into this region include : (a) Reclamation of new lands for cultivation as Patiala district gained 8.8 per cent area for cultivation in the period 1951-54 to 1960-63 (United Nations, 1975, p. 37). Out of this gain a large part was reclaimed from the flood plain of river Ghaggar : (b) Availability of relatively cheaper agricultural land in the flood plain region was an additional attraction ; (c) The extension of canal and tubewell irrigation facilitated intensive farming. Apart from these factors, the passing of Land Ceiling Act in 1953 forced a large number of feudal farmers, so numerous in this district (which till 1948 was a princely state), to sell large share of their surplus lands at low rates. Besides,

PATIALA DISTRICT
CHANGE IN DENSITY OF RURAL POPULATION
1951-81
(Data by individual villages)

Urban Centres

1 BASSI
2 SIRHIND
3 DERA BASSI
4 BANUR
5 RAJPURA
6 PATIALA
7 SANAUR
8 PATRAN
9 GHAGGA
10 SAMANA
11 NABHA
12 AMLOH
13 GOBINDGARH

CHANGE IN DENSITY
PERSONS PER SQ.KM.

150
100
0
□ Decline
▪ Uninhabited

0   8
Kms.

Fig. 1

PATIALA DISTRICT
GROWTH OF RURAL POPULATION
1951–81
(Data by individual villages)

Urban Centres
1 BASSI
2 SIRHIND
3 DERA BASSI
4 BANUR
5 RAJPURA
6 PATIALA
7 SANAUR
8 PATRAN
9 GHAGGA
10 SAMANA
11 NABHA
12 AMLOH
13 GOBINDGARH
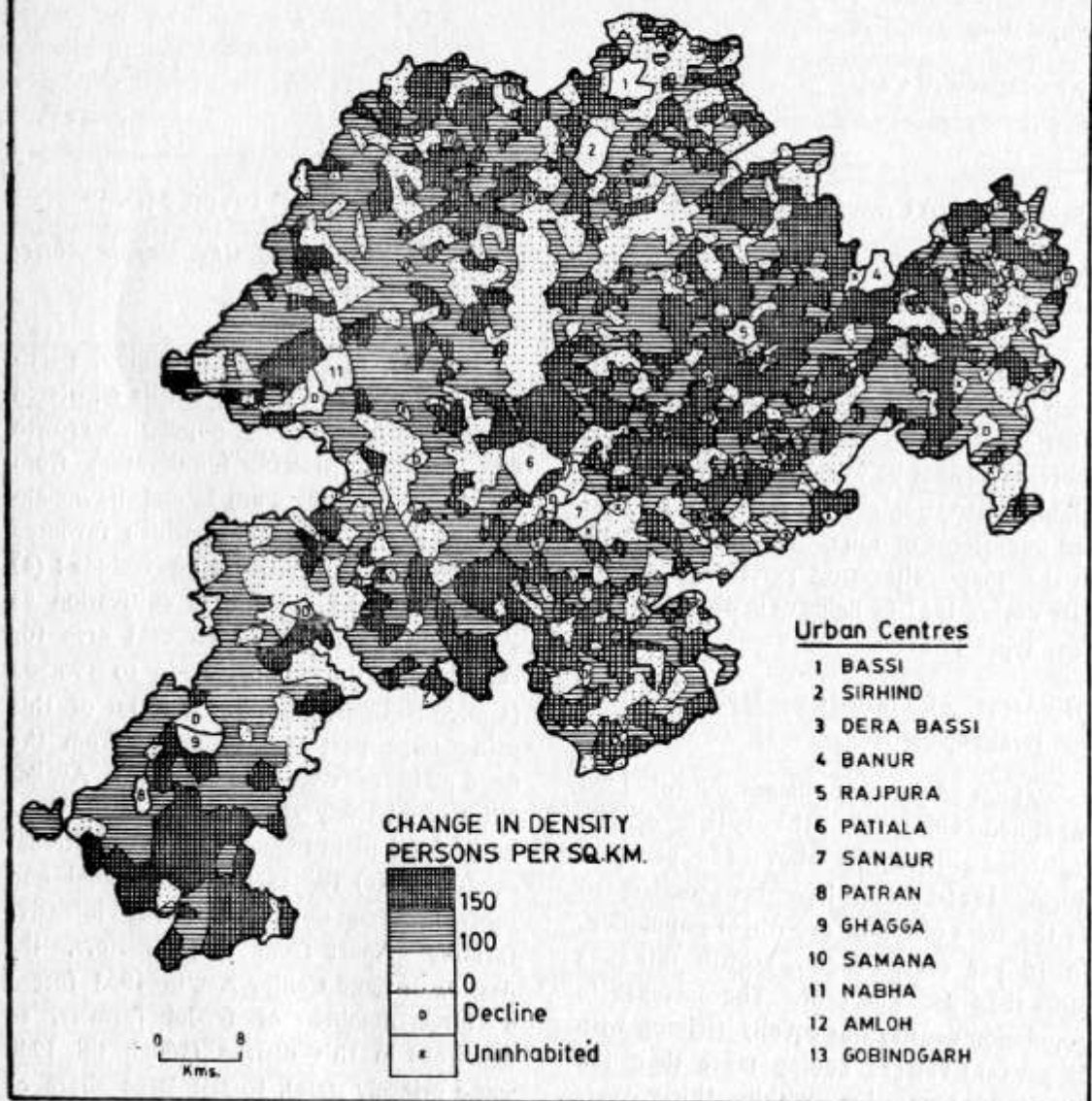
PERCENTAGE
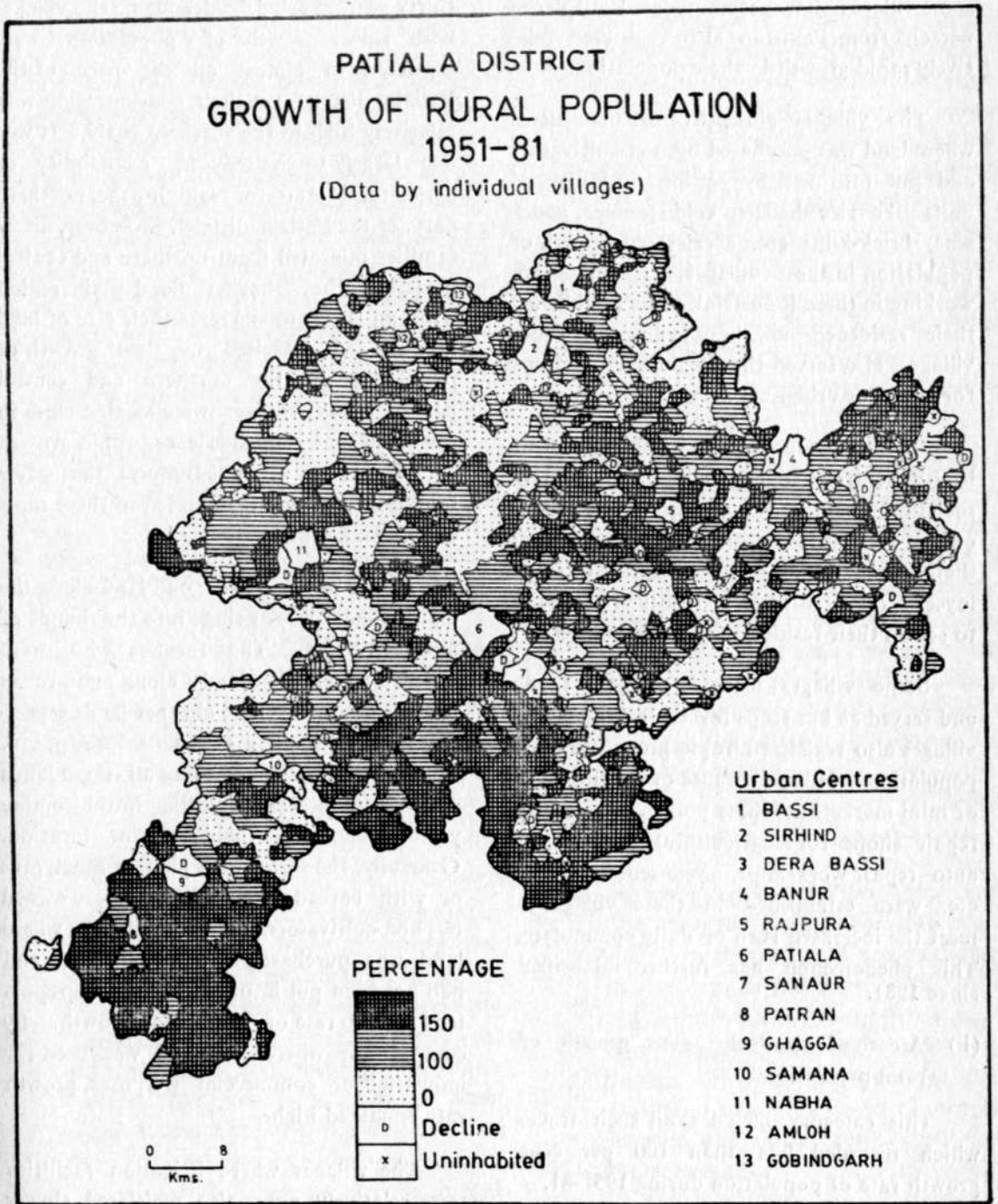150
100
0
D Decline
x Uninhabited

0   8
Kms.

Fig. 2

some villages that accommodated displaced persons from Pakistan also registered relatively rapid growth in their population.

The villages close to urban centres where land was purchased by non-cultivators and put into use by setting up industrial units like rice shellers, cold storages, godowns, brick-kilns etc. accelerated growth of population in these villages. The labourers working in these industrial units established their residence in these villages. These villages also served the dormitory functions for the poor urban workers.

In some villages the establishment of health centres, high schools, cooperative societies, banks, flour mills, electricity offices etc. led to relatively rapid growth in their population. A large number of employees serving in these institutions preferred to set up their residence in these villages.

Some villages located on main roads and served as bus stops for the neighbouring villages also registered rapid growth in their population. It was because of development of mini markets at these points. Generally repair shops for agricultural implements, auto repair workshops, cycle-scooter stands etc. were established in these villages to meet the increased rush of daily commuters. This phenomenon has further intensified since 1981.

(ii) Areas of relatively slow growth of rural population

This category includes all such tracts which recorded less than 100 per cent growth rate of population during 1951-81.

About 32 per cent villages registered a growth rate below 100 per cent during this thirty years period. Although, the villages with slow growth of population were scattered in almost all the parts of the Patiala district, yet their concentration was relatively high in the northern parts. It was due largely to the reduced availability of agricultural land for sale in the northern parts of the Patiala district. Moreover, a few families migrated from northern and central parts to the Ghaggar flood plain region with an idea to increase their size of land holdings. It resulted in slow growth of population in the northern and central parts. Many villages were located close to the areas that had experienced rapid growth of population. It was natural that a few families must have migrated to these rapidly growing centres.

It is noted that good land along the main roads was going into the hands of non-cultivators. The farmers who were tempted to sell their lands along main roads migrated to purchase cheaper lands especially in flood plain areas (Gill, 1987, p. 70). The rich elite was purchasing all these lands which were to become costlier in the coming years because of their superior location. Generally, the farms with planted Eluclyptus or with barbed wire enclosures were owned by non-cultivators. In the villages where land was purchased by non-cultivators and had not been put into any active use reported slower rate of population growth. By comparison, where the land was used for industrial or commercial purposes, growth rate remained high.

The villages where irrigation facilities were relatively poor also registered slower rate of growth. It was particularly true for the north-eastern parts of the district.

(iii) **Areas of moderate increase of rural population**

The areas which experienced growth rate between 100 and 150 per cent during 1951-81 have been designated as areas of moderate population growth. About 30 per cent villages came under this category were distributed in almost all parts of the district. The moderate increase of rural population in these areas was due to limited in-migration. The reasons for in-migration were similar to those discussed earlier but operated here in low intensity.

(iv) **Areas of Net Population Decrease**

More than 3 per cent of total inhabited villages of the Patiala district ended up with absolute population decrease during 1951-81. Out-migration from these villages was associated with a complex set of factors. The degree of effectiveness of these factors varied from one village to the other. The main push factors that resulted in excessive out-migration were small size of land holdings, poor irrigation facilities, menace of flooding, poor public amenities and personal disputes.

Conclusions

(i) The growth rate of rural population in the study area declined sharply from 42.69 per cent in 1951-61 to 23.46 percent in 1971-81. However, rural population registered growth of 123.61 per cent during this period spaning over thirty years. The growth is evidently much higher than the corresponding increase in Punjab's rural population. This increment has meant an additional burden of 137 persons per square kilometre of land area.

(ii) Intra district variations in growth of rural population have been shaped largely by intensity of migration which emerges as the most crucial component in this regard. Net population growth rates were modified by the magnitude of in - and out migration. In-migration to the study area from different parts of Punjab state was associated mainly with reclamation of new lands, availability of cheaper agricultural land, allotment of land to the displaced persons from Pakistan, passing of Land Ceiling Act and extension of irrigation facilities.

(iii) The mechanisation in agriculture, increase in population pressure on agricultural land; rise in literacy rate; awareness and better transport links all have increasingly drawn the ruralities towards urban areas to seek jobs. Even some well-off farmers having large holdings have started making investments in the urban areas. Better public amenities and location of business and employment opportunities in the urban areas have further favoured the urban-ward migration from the Study Area.

(iv) The study supports the views that good land along the main roads was indeed going into the hands of non-cultivators, mostly living in the urban areas. These people purchased all those lands which were supposed to fetch higher price because of their superior locations. This trend has been more pronounced near the big urban centres and along the main roads.

(v) Different demographic responses by different castes and communities clearly

the reflected the imprints of economic development upon the process of demographic change. Considerable variations were reported in the growth rates of various religious communities. Similarly, striking variations emerged in the growth rates of scheduled castes and general rural population. The proportion of different castes & communities in the rural population experienced changes due to their uneven growth rates. So the uneven growth of different religio-socio-groups is cable of making serious divides in the coming years. It is a disturbing trend that requires serious attention.

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LITERACY DIFFERENTIALS IN TRIBAL AND NON-TRIBAL POPULATION OF INDIA, 1981

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While the population of developed countries has achieved the final stage of literacy transition, the population in third world countries like India is still characterised by a wide range of both horizontal and vertical inequalities in literacy. From among the various pairs of inequality in literacy, the sharpest is that between tribal and non-tribal population for which the differential index in 1981 was as high as 56.86. The Chief objective of this study is, therefore, to examine this disparity in both time and space. Based on 1981 districtwise census data, the micro-level analysis has been made with the help of four choropleth maps. Spatially, the index is high in tradition gripped & economically backward areas of Western Rajasthan, of central highlands and of Western Arunachal Pradesh. It is low in Christian tribal belt of northeast; the early exposed areas of southern peninsula, parts of Gujarat, Maharashtra & Karnataka, and numerically insignificant areas of northern Rajasthan & Western Himalayas.

INTRODUCTION

The quality of population in a country can easily be discerned by the] quality of education, it imparts. Education is a powerful instrument of enlightenment and exposure to out-side world. Being a sensitive indicator of cultural advancement of a society apart, it is also a vital element of socio-economic transformation of a country as it provides a basal stratum for the acceleration of development process. The spread of such an important attribute of modernisation in India is not ubiquitous. Not only mass illiteracy is still prevalent but also there are sharp horizontal and vertical inequalities in literacy within the country. Apart from wide regional variations in literacy differences between one area and another, males and females, urban and rural populations, scheduled castes and non-scheduled castes, adults and non-adults, and different religious groups, sharp contrasts have also been observed in the literacy rates of those on the one hand who are considered to be the original inhabitants in heredity of the country and the other population on the other hand. Since time immemorial, these tribals had not only isolated themselves in most inapproachable areas like mountains, forests, etc. but also had received an inadequate attention of the planning programmes of independent India. Thus, among all the above mentioned pairs of disparity, the gap in the literacy rates of tribals and non-tribals in Indian society is extremely wide. A perusal of geographic literature reveal that in India, some studies have been carried out to

ascertain the trends and patterns of regional disparities in literacy at macro, meso and micro levels. The studies having their focus on the differentials in literacy are only few to count (Sagar, 1990). Within these studies, more attention has been given to disparity in all or by sex, residence and caste (Sopher 1980, Krishan, 1978 Raza & others, 1986, Sagar, 1989, 1992). No attempt has yet been made to analyse the literacy differential by tribe in the country. Keeping in view this research gap as well as the planner's endevour of eradicating the socio-regional inequalities in literacy, the present work will be a contribution in this regard in which certain issues are to be thrashed over : (a) what is the size of this diparity ? ; (b) whether this disparity is enlarging with the passage of time or the vice versa ? ; (c) what causal factors are responsible for it ? ; (d) what is the quantitative performance of this disparity at both meso and micro levels ? ; (e) how this disparity is spread over space ? and (f) what concrete should be done for the removal of this horizontal and vertical inequality between the tribal and non-tribal population ?

METHODOLOGY

For this enquiry, in view of the heterogeneous character of Indian society, the district has been considered to be the most suitable unit of study for which latest census data for 1981 are available. The district by and large, has far long been characterised by geographical accessibility, temporal continuity, societal uniformity, lingual affinity, administrative approachablity in the country. In 1981, of 412 districts, there were only 357 districts with tribal population for which the analysis has been made. The census of 1981 provides most of the data required for the study. Though recently census of India has also published provisional data for 1991 with national figures only for general population, yet it will take more years for publishing the 1991 census data for scheduled tribes.[1] It is worth mentioning here that because of definitional change in literacy for 1991[2], change in literacy differential could not be processed. Before 1961 too, no such data for scheduled tribes in India is published, therefore estimated figures for 1951 & 1991 census years are used in this paper. Thus the present study will analyse this differential for 1981 in its true geographic spirit.

CONCEPTUAL FRAMEWORK

The scheduled tribe population accounting for about 8 per cent of the country's population constituted another highly illiterate segment of Indian society. In 1981, while 37.90 per cent of the non-tribal population in the country was recorded as literate, the corresponding figure for the tribal population was only 16.35 per cent.

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1. The President of India had prepared a list for socially and economically backward section of Indian society that are known as scheduled tribes and scheduled castes.

2. In 1981, the census figures for literacy includes 0-4 age group which is normally illiterate, whereas in 1991, census figures for literacy excludes 0-7 age group.

Table 1

INDIA : Literacy Rates of Scheduled Tribes and Non-Scheduled Tribe Population and Differential Index, 1981[a] and 1991[b]

Population	1981			1991[c]		
	Percentage of Literates			Percentage of Literates		
	Non-Sch. Tribe Population	Sch. Tribe Population	NST/ST Diff. Index	Non-Sch. Tribe Population	Sch. Tribe Population	NST/ST Diff. Index
Total						
Persons	37.90	16.35	56.86	46.64	23.66	49.27
Males	48.73	24.52	49.68	57.87	34.10	41.07
Females	26.29	8.04	69.42	34.98	13.33	61.89
Rural						
Persons	31.21	14.92	52.19	39.07	20.84	46.66
Males	42.63	22.94	46.19	51.53	31.10	39.65
Females	19.16	6.81	64.49	26.24	10.64	59.45
Urban						
Persons	57.81	37.93	34.39	63.39	49.88	21.31
Males	66.21	47.60	28.02	71.21	61.09	14.21
Females	48.26	27.32	43.39	54.90	38.00	30.78

Source :   Calculated from :

1 :   Census of India (1983) : *Scheduled Tribes, Primary Census Abstract*, Series 1, India (1981), Part II-B (iii), Registrar General, New Delhi, pp. 4-15.

2 :   Census of India (1983) : *General Population, Primary Census* Abstract, Series 1, India (1981), Part II B (i), Registrar General, New Delhi, pp. 4-27.

a   Excludes the population of Assam where census could not be held owing to disturbed conditions.

b   Excludes the population of J & K where census could not be held owing to disturbed conditions.
    Estimated.

It implied a differential index[3] of 56.86 (Table 1). The index was more sharp among females (62.43) than that among males (40.98). Interestingly, the female literacy of urban tribal population (27.32 per cent) was higher than even the male literacy of rural tribal population (22.94 per cent).[4] On the other hand, rural female literacy of scheduled tribes (6.81 per cent) is about eleven times lower than the urban male non-tribal literates (66.21 per cent). These apart, in terms of residence, the differential index is comparatively larger for rurals (52.19) especially among rural females (64.46). In 1991 though the index figures were reduced marginally, yet, it represented the same scenario (Table 1). Historically speaking, this gap between both the social groups had continuously been squeezing since independence. In 1951, the differential index was extremely high (87.71) (Table 2) as the tribal literacy (2.57 per cent) was about ten times lower than that of non-tribal population (20.92 per cent). With the significant increase in scheduled tribe literacy, the index narrowed down gradually from 87.71 in 1951 to 40.34 in 2001.

It is worth mentioning that at the end of this century this index might decline exhubrantly due to definitional change in literacy and area specific literacy drives in the country. Thus, this trend strongly supports the hypothesis of lessening the regional disparities over time with the development. Secondly, the proximity of females in terms of their literacy accomplishment will be 30 years behind to that of tribal males.

The wide gap between the literacy rates of tribal and non-tribal population is the product of centuries old physico-socio-psychological isolation suffered by the tribal people. The bulk of tribal population in India lives in areas of difficult terrain and suffers from physical isolation. Secondly, the tribal people speak many languages which seriously impede interaction. Thirdly, the present system of education is largely unsuitable to their life and ideals (Majumdar, 1961, 396). Fourthly, the economic exigencies compel their women and children to participate in the economic struggle, and thus, deprive them of the educational facilities available locally or otherwise. Fifthly, for fear of cultural disintegration also, the tribal population wilfully keeps itself away from the rest of population (Kuppuswami, 1984, 200). Sixthly, the number of schools in the tribal belt are also inadequate. Seventhly, they have also suffered exploitation at the hand of money lenders, liquor vendors, item vendors, land grabbers, forest encroachers etc. (Ramunny, 1987, 50). Lastly, both appalling poverty and general ignorance about the utility

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3. The differential index has been calculated by using the following formula :

$$DI = 100 \ (1-yi/xi)$$

where

DI stands for differential index; Yi for percentage of tribal literacy in an area (i) and Xi for percentage of non-tribal literacy in the same area (i) (Sagar 1989, p. 21).

4. It has been noted in Indian context that reservation benefits are mostly utilised by urban tribal people for the best use of this scheme, entry & exise principle in an urban area might be adopted. It refers that once an urban tribal man enjoyed the benefit, his issue might be strictly debarred from using it again.

Table 2

INDIA : Progress of Literacy Rates of Scheduled Tribe and Non-Scheduled Tribe Population and Differential Index, 1951-2001.

Year	Non-Scheduled Tribe Literates (Percentage)			Scheduled Tribe Literates (Percentage)			Differential Index		
	P	M	F	P	M	F	P	M	F
1951*	20.92	31.29	9.56	2.57	10.85	2.05	87.71	65.32	78.56
1961	25.34	35.86	13.65	5.39	13.83	3.16	78.72	61.43	76.85
1971	30.69	41.10	19.48	11.30	17.63	4.85	63.18	57.10	75.10
1981	37.90	48.73	26.29	16.35	24.52	8.04	56.86	49.68	69.42
1991*	46.64	57.87	34.98	23.66	34.10	13.33	49.27	41.07	61.89
2001*	57.99	68 72	46.54	34·24	47.42	21.10	40.34	30.99	54.66

Source : Calculated from : 1961, 1971 and 1981 census volumes
* Estimated figures are based on G P. series.

of modern education, are the salient features of tribal society. These are the factors that have kept the tribal society of India socially and economically backward. It may be mentioned here that the gap in the literacy rates of the tribal and non-tribal population would have been still wider but for the relatively high literacy rate of Christian tribal population. The condition of non-Christian tribal population in this regard is much more pitiable.

However, after Independence, special efforts have been made to bring the tribal population into the mainstream.

The Indian Constitution enjoins upon the state a responsibility of planning and executing schemes for their advancement. The tribal advisory and district councils have been given judicial, legislative and executive powers for the developmental activities, including education (Article 46).[5] Apart from categorising the tribal areas into three specific schedules, under the directive principles of state policy, the state has been made responsible for the promotion of education and economic interests of the tribal population. The government has taken a number of steps in this regard. These measures include, the opening up of educational institutions

5. Article 46 : The State shall promote with special care the educational and economic institutions of the weaker sections of people, in particular of Scheduled Castes and Scheduled Tribes and shall protect them from social injustice and all forms of exploitation.

on priority basis in tribal areas; provision of financial incentives in the form of scholarships, freeships, free uniforms, books and stationery; setting up of Ashram schools; boarding facilities with free food; introducing the reservation quota in educational institutions and other services; coaching facilities at low cost for competitive examinations and facility of ration subsidy for school-going children etc. (Mishra, 1986, 1). The benefits of reservation are also extended to them in their electoral representation to bring them in the mainstream of national life. These apart, to ensure the proper use of funds and speedy implementation of new welfare schemes, an independent department at the ministry level was also established for the scheduled tribes as well. In addition to the government's efforts, the Christian missionaries have also made their own contribution, especially in the area of education. Thus, the favourable governmental policies, positive efforts of Christian missionaries, increasing degree of social and economic interaction, protection of their cultural identity, were some of the factors associated with the gradual decline in the differential index. The differential index could be narrowed down further if the government continues to support the present schemes and facilities; adopts the suitable school timings, days and months; extends full reservation to tribal female literates; restructures the content of syllabus at the elementary stage; appoints rural tribal female teachers in both vocational & educational centres; opens more vocational centres in rural areas, bans the slash and burning method for the permanent settlement; reviews the welfare schemes to the accordance of area & tribal group; and deploys more dedicated workers and voluntary staff members in the tribal area of the country.

MESO LEVEL ANALYSIS

In 1981, the literacy differential index tribal and non-tribal population in India was 56.86. Of 18 concerned states, there were six states which portrayed low differential index (Less than 40). These included Sikkim (3.50), Manipur (5.29), Uttar Pradesh (24.73), Nagaland (25.87) Meghalaya (29.20) and Bihar (37.17). On the other end of the scale were the five States of Andhra Pradesh (75.05), West Bengal (68.98), Madhya Pradesh (67.64), Orissa (65 18) and Rajasthan (61.01). Similarly, of six union territories both the Mizoram (6.27), Lakshadweep (37.18) in terms of literacy differential were in sharp contrast to Dadra & Nagar Haveli (73.31) and Arunachal Pradesh (61.43). (Table 3). Among these administrative, units, the low literacy differential was the product of strenous efforts of Christian missionaries, in migration of generally literate tribal population and the negligible proportion of scheduled tribes where as the general socio-economic backwardness of large sized areas displayed very high literacy differential. In Sikkim, most of the Bhutia and Lepcha tribes are actively engaged in trade and commerce activities for which education had great functional value (Lall, 1981, 223).

MICRO LEVEL ANALYSIS

Spatial Pattern

Of 402 districts, 45 districts are such that have no scheduled tribe population. In the remaining 357 districts, in about 11 per cent districts, the literacy rate among

Table 3

INDIA : Literacy Differential between Non-Scheduled Tribe and Scheduled Tribe Population, 1981

India/State/Union Territory	Percentage of Scheduled Tribe Population	Percentage of Literates		Differential Index
		Non-Scheduled Tribe Population	Scheduled Tribe Population	
INDIA* @	7.76	37.90	16.35	56.86
States				
Sikkim	23.27	34.33	33.13	3.50
Manipur	27.30	41.96	39.74	5.29
Uttar Pradesh	0.21	27.17	20.45	24.73
Nagaland	83.99	54.39	40.32	25.87
Meghalaya	80.58	44.56	31.55	29.20
Bihar	8.31	27.04	16.99	37.17
Himachal Pradesh	4.61	43.27	25.93	40.08
Karnataka	4.91	37.47	20.14	46.25
Tripura	28.44	49.69	23.07	53.57
Kerala	1.03	70.82	31.79	55.11
Maharashtra	9.19	49.70	22.29	55.15
Gujarat	14.22	47.44	21.14	55.44
Tamil Nadu	1.07	47.05	20 46	56.51
Rajasthan	12.21	26.34	10 27	61.01
Orissa	22.43	40.09	13 96	65.18
Madhya Pradesh	22.97	33.00	10.68	67.64
West Bengal	5.63	42.59	13.21	68.98
Andhra Pradesh	5.93	31.34	7.82	75.05
Union Territories				
Mizoram	93.55	63.62	59.63	6.27
Lakshadweep	93.82	84.57	53.13	37.18
Andaman and Nicobar Islands	11.85	54.31	31.11	42.72
Goa, Daman and Diu	0.99	56.96	26.48	53.51
Arunachal Pradesh	69.82	36.40	14.04	61.43
Dadar and Nagar Haveli	78.82	63.18	16.86	73.31

Source : Calculated from :

1 : Census of India (1983) : *Scheduled Tribes, Primary Census Abstract*, Series 1, India (1981), Part II-B (iii), Registrar General, New Delhi, pp. 4-15.

2 : Census of India (1983) : *General Population, Primary Census Abstract*, Series 1, India (1981), Part II-B (i), Registrar General, New Delhi, pp. 4-27.

* : Excludes the population of Assam where census could not be held owing to disturbed conditions prevailing there.

@ : Excludes the population of areas under unlawful occupation of Pakistan and China where census could not be taken.

‡ : No scheduled tribe has been scheduled by the President of India for Haryana, Punjab and Jammu and Kashmir and the Union Territories of Chandigarh, Delhi and Pondicherry.

Table 4

INDIA : Structure of Literacy Differential, 1981

Differential level Quantity of Districts	Index				
	High (60+)	Moderate (60—40)	Low (40-)	Negative (-iv)	Total
Number	129	89	98	41	357
Percentage	36.14	24.93	27.45	11.48	100.00

Source : Calculated from 1981 census volumes.

scheduled tribes was higher than that among the non-tribal population (Table 4). In about 36 per cent of the districts, literacy differential index was high. In fact, the differential index varies from 0.16 in Mokokchung district (Mizoram) to 94.62 in Pilibhit district (Uttar Pradesh). Broadly speaking, the spatial pattern of the differential index was inversely related to the spatial pattern of literacy among scheduled tribe population. However, following four types of areas are discernible on Map 1 :

A   Areas of low literacy differential where the index value was less than 40;

B   Areas of moderate literacy differential where the index value ranged between 40 and 60;

C   Areas of high literacy differential where the index value was more than 60; and

D   Areas of negative literacy differential where the tribal literacy was more than the non-tribal literacy.
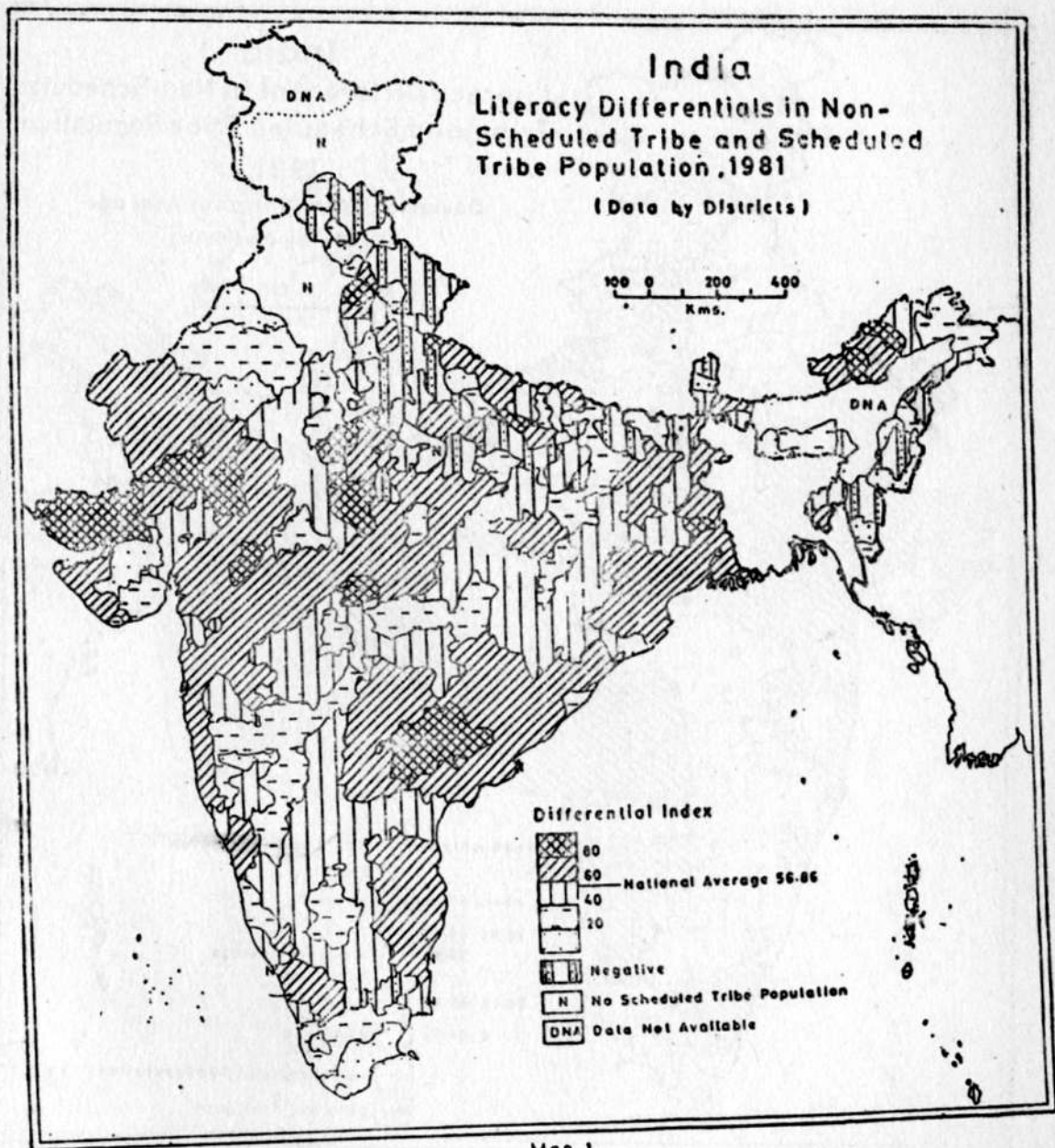
A   Areas of Low Literacy Differential

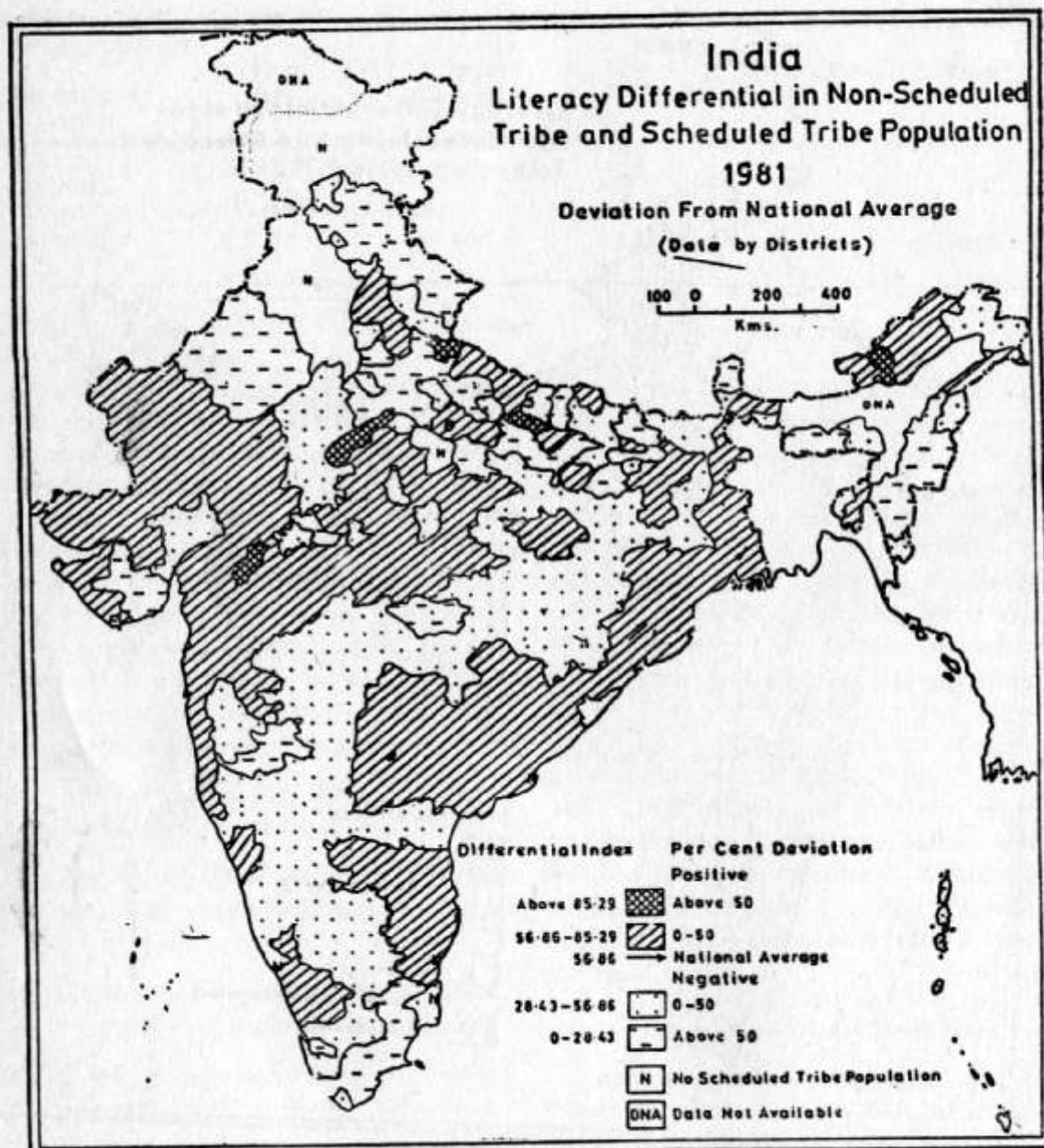There were 98 districts in all that recorded low differential index value of less than 40. In 26 districts, the index value was less than 20. In all these districts, the literacy among the scheduled tribe population was more than 30 per cent (Map 3). Broadly speaking, the literacy differential between tribal and non-tribal population was inversely correlated with (i) literacy rate of the tribal population (—0.6749495), (ii) tribal male literacy (—0.8419191), and (iii) tribal female literacy (—0.5055827). The areas of low literacy differential included southern parts of Kerala and Tamil Nadu; north-eastern region; parts of Vidarbha tract; Bangalore region; southern Maharashtra and adjacent parts of Karnataka; Kathiawar region; hill areas of Himachal Pradesh; northern parts of Rajasthan and a few isolated districts.
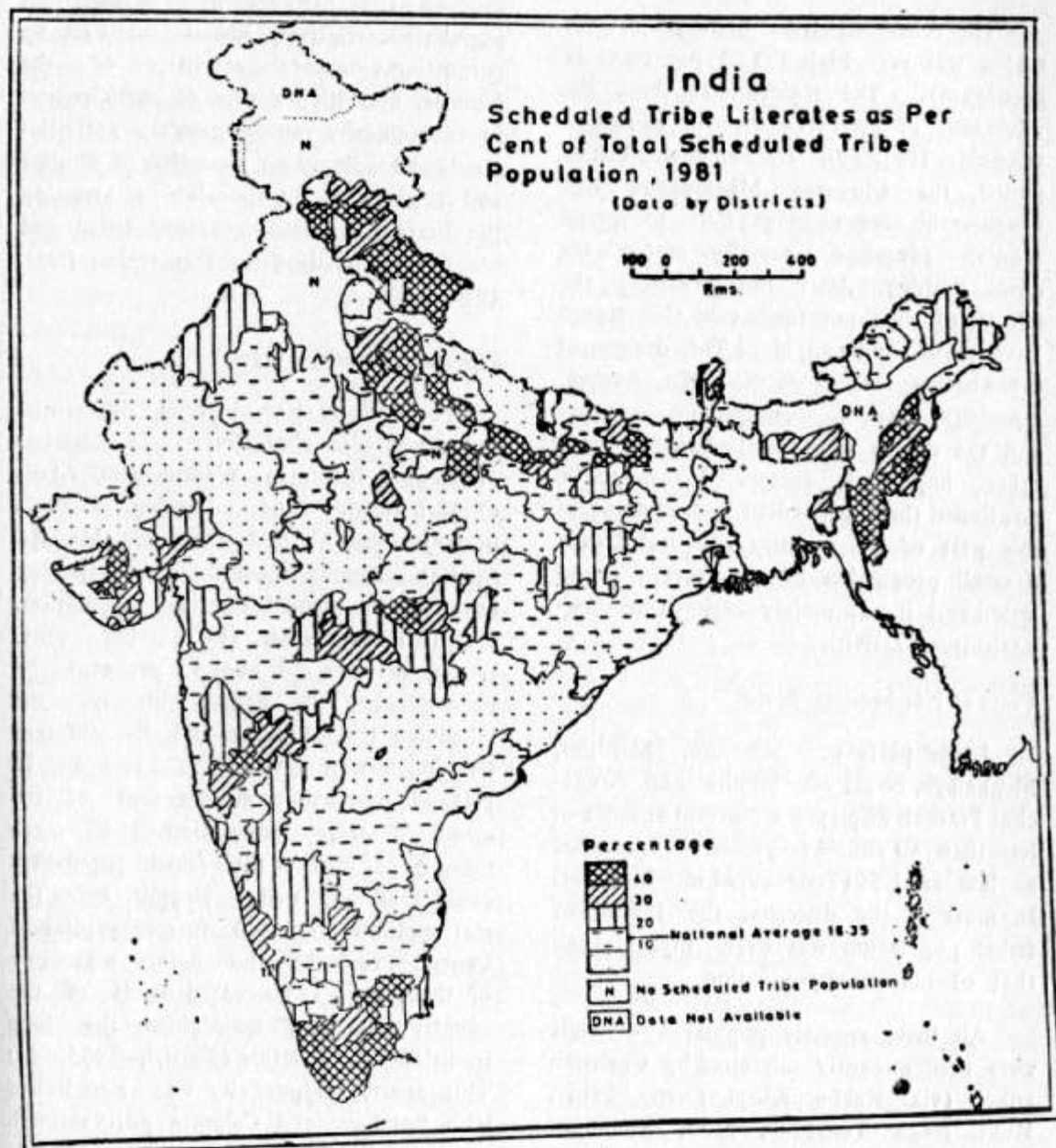
Southern Parts of Kerala and Tamil Nadu

In Peninsular India, this region of low differential index comprised the districts of Trivandrum, Quilon, Alleppey, Kottayam, Idukki and Ernakulam of Kerala and the districts of Ramnathapuram, Tirunelveli and Pudukkottai of Tamil Nadu. Here, the

India
Literacy Differentials in Non-Scheduled Tribe and Scheduled Tribe Population, 1981
(Data by Districts)

Differential Index

80
60 —National Average 56.86
40
20

Negative

N   No Scheduled Tribe Population

DNA   Data Not Available

Map 1

India
Literacy Differential in Non-Scheduled
Tribe and Scheduled Tribe Population
1981
Deviation From National Average
(Data by Districts)

100 0 200 400
Kms.

Differential Index	Per Cent Deviation
	Positive
Above 85·29	Above 50
56·86 – 85·29	0 – 50
56·86	→ National Average
	Negative
28·43 – 56·86	0 – 50
0 – 28·43	Above 50
N	No Scheduled Tribe Population
DNA	Data Not Available

Map 2

India

Schedaled Tribe Literates as Per Cent of Total Scheduled Tribe Population , 1981

(Data by Districts)

100 0   200   400
Rms.

Percentage

40

30

20 — National Average 16·35

10

N No Scheduled Tribe Population

DNA Data Not Available

Map 3

index was also low among females and rural population.

The scheduled tribe literacy in the region was very high (73.63 per cent in Kottayam). The region has had the advantage of an early start in education (Conable, 1991, 65). Ever since the British period, the Christian Missionaries had consistently been making efforts to spread modern education especially among the down trodden. After Independence, the efforts of state government in this regard have been commendable. The degree of urbanisation, the status of women, especially in a matriarchal society and the degree of general awareness were other important factors. It may be mentioned that the tribal population in this part of the country constituted only a small proportion of the total population and it was mainly engaged in non-agricultural activities.

Parts of Northeastern States

Large parts of Mizoram, Manipur, Meghalaya, Nagaland, Sikkim and Arunachal Pradesh displayed a differential index of less than 40 and, at places, it reached as low as 1.56 (Tengnoupal in Manipur) In most of the districts, the literacy of tribal population was even higher than that of non-tribal population.

All these sparsely populated districts were predominantly inhabited by Christian tribes (viz. Rabha, Khasi Garo, Paner, Kuki, Naga Tangkhul, Mao, Thandon, Lushai, Naotia, Lakher, Mikir, Dimsha, Maga, Aka, Khampti, Mishmi and Ureng etc.). The Christian Missionaries even prior to independence, had made intensive efforts to extend educational facilities as well as their religion among the tribal groups. Thus, high percentage of Christian population, relatively liberal social set up permitting outdoor activities of the females, and high degree of participation in economically more gainful activities (trade and commerce), especially of Bhutias and Lepchas were responsible for arresting the literacy differences among tribal and non-tribal population in this region (Das, 1982, 397).

Parts of Vidharbha Tract

A relatively low literacy differential index was also characteristic of districts of Nagpur, Bhandara, Wardha and Akola of Maharashtra and adjoining districts of Rajnandgaon and Durg of Madhya Pradesh. Among these districts the literacy rates of the scheduled tribe population, except Rajnandgaon (18.76 per cent) ranged between 24 and 45 per cent. In Rajnandgaon, the general literacy, the scheduled tribe literacy and the differential index were low (Maps 2 and 4). In Nagpur, more than 40 per cent of the scheduled tribe population and more than 30 per cent of their female population could read and write. Nagpur, being the metropolitan city and former capital of Central Provinces and Berar, was one of the most advanced districts of the country that had maintained the long tradition of education (Shastri, 1985, 44) This apart, Nagpur city was also linked with Bombay and Calcutta ports through rail road links. These links were responsible for the agro-industrial development in the region in which a bulk of scheduled tribe population was also engaged. Thus, the

commercialisation of agriculture, high level of urbanisation, high proportion of non-agricultural workers and increasing employment potential of the region were responsible for accelerating the pace of literacy among both the males and females in general as well as in tribal population. It may be pointed out that the tract being the centre of reformist movements by Gandhi, Phule and Ambedkar for the development of out castes/untouchables during the British rule had seen propagation of education among the down trodden as well.

The Bangalore Region

Low differential index was also registered in the districts of Bangalore, Tumkur and Mandya of Karnataka in which moderate rates of literacy among scheduled tribes were recorded (18 to 25 per cent). In all these districts, the proportion of scheduled tribe population was less than 10 per cent, being the lowest of less than 1 per cent in Mandya district. This region of low disparity was emerging as the mineral house of southern India in which most of tribal population was actively working in eking out its livelihood. The development of industries near the mineral extraction centres had increased the employment opportunities for the literate and non-tribal population. The improving economic conditions of the family, increasing employment facilities in the non-agricultural sector, growing degree of urbanisation, increasing rural-urban interaction and favourable policies of state government together helped in narrowing down the gap between tribal and non-tribal literacy in the region.

Areas of Southern Maharashtra and Adjacent Karnataka

Large parts of southern Maharashtra and adjoining northern Karnataka constitute another area of low differential index. The differential index in this region was also low among males and females and rural and urban population. The proportion of scheduled tribe population, barring Nanded (10.18 per cent), was less than even 5 per cent in the region. Nanded, a part of erstwhile Hyderabad state, was governed by less progressive rulers and hence lagged behind. By comparison, rulers of Kolhapur and Bijapur were enlightened rulers and took keen interest in the propagation of education in all sections of society in their kingdom prior to Independence. Location of the region in close proximity of western coast was an added factor. A well developed network of roads and rails permitted high degree of urban-rural interaction. Above all, rapid expansion of urban/industrial centres, and of mining and plantation activities in the region during post-Independence period helped in improving the economic conditions of tribal people who were participating overwhelmingly in these non-agricultural activities (Chandna, 1989,55).
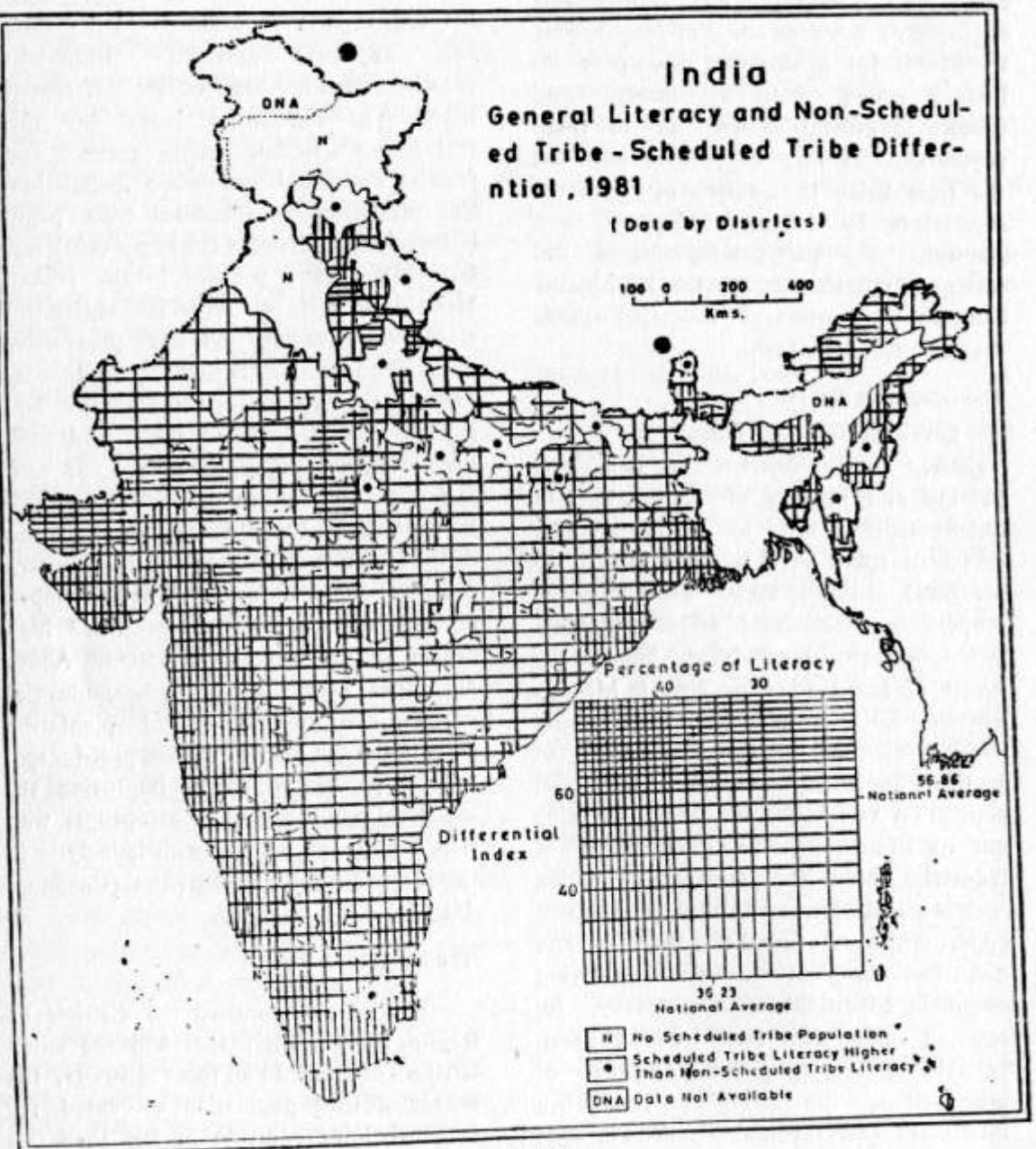
The Kathiawar Region

This region comprised the districts of Rajkot, Amreli, Bhavnagar and the union territory of Diu. In all these districts, the scheduled tribe population accounted for extremely low proportion of less than one per cent. Most of the scheduled tribe population was engaged in government/private jobs, in education, health, transpor-

India
General Literacy and Non-Scheduled Tribe - Scheduled Tribe Differential , 1981
(Data by Districts)

100 0   200   400
Kms.

Percentage of Literacy
40   30

56 86
National Average

60

Differential Index

40

36 23
National Average

N No Scheduled Tribe Population

• Scheduled Tribe Literacy Higher Than Non-Scheduled Tribe Literacy

DNA Data Not Available

Map 4

tation services and in security forces for which education had great functional value.

Hill areas of Himachal Pradesh

These included the districts of Mandi Shimla, Sirmaur and Kinnaur. In Shimla (16.76), the differential index was low, significantly. The urban population of above districts displayed negative index values. Here, the literacy rates among scheduled tribes varied between 25 per cent and 50 per cent. Barring Kinnaur (74.87 per cent), the proportion of tribal population was low in this region. By and large, the bulk of tribal population in the area, being employed in commercialised horticulture (fruit packing activities and administration, sanitation, transportation education and defence services was relatively economically better off. The opening up of a large number of schools during 1951 (545) and 1981 (8,639) had a catalytic effect on the spread of literacy, especially among the scheduled tribes. Above all, apart from the state and centrally sponsored programmes, the role played by the external agencies, like UNICEF and World Bank in achieving the target of universalisation of elementary education by 1990 (Government of Himachal Pradesh, 1986, 103) was also of immense importance in narrowing the gap between the tribal and non-tribal literacy.

The Northern Rajasthan Tract

The tract covered the districts of Ganganagar, Bikaner, Churu, Nagaur, Sikar, Jhunjhunun, Alwar, Swai Madhopur and Bharatpur of Rajasthan where the index values were less than 30. Among these,

negative values of differential index among the male literates were recorded in the districts of Ganganagar, Bikaner and Nagaur. The literacy rates among scheduled tribes of the tract ranged from 10 to 25 per cent. The low disparity index of this region was the product of small numbers involved which was primarily engaged in government and other services that required a certain level of education. It needs stressing here that the differential index would have been still higher but for the largely backward agricultural economy.

These apart, low literacy differential index was also found in certain isolated and scattered districts of Calcutta, Bombay, Gandhinagar, Gwalior, Southerns Sikkim, Madras, Raigarh, Dakshin Kannad, Andaman Island, Lakshadweep, Etawah, Damoh, Palamau, Chamba, Srikakulm, etc. It was associated with the high degree of urbanisation and low proportion of scheduled tribe population in Calcutta, Bombay, Gandhinagar, Gwalior, Southern Sikkim and Madras; with Christian missionary activities in Raigarh, Dakshin Kannad and Andaman Island; with high proportion of non-agricultural workers in Lakshadweep; and with general socio-economic backwardness in Etawah, Damoh, Palamau, Chamba, Srikakulam, Shajapur and Ujjain.

Thus, the areas of low literacy differential were those that had an early start in education, high percentage of Christian population, high incidence of rural-urban interaction, high percentage of non-agricultural workers, relatively high status of women, and small proportion of tribal population.

B Areas of Moderate Literacy Differential

All those districts where the index values ranged between 40 and 60 were classified as the areas of moderate disparity. There were 89 such districts in all. In these districts, the literacy rates were less than 30 per cent in general as well as among scheduled tribe population (Maps 4 and 3). These areas of moderate differential index were transitional in location. Generally, these were sandwiched between the areas of low differential index and the areas of high differential index. Most of Karnataka, large parts of eastern Maharashtra, hill areas of Chota Nagpur plateau, parts of eastern Rajasthan, Gujarat central plain and some scattered districts were the areas of moderate differential index. Broadly speaking, these included areas where (i) the influence of Christian missionaries was high (Karnataka and Chota Nagpur area) (Singh, 1986, 96); (ii) the mining activities had been largely expanded (Karnataka, Chota Nagpur area and Rajasthan); (iii) the growth of urban-industrial centres was rapid (Gujarat and Maharashtra); (iv) the percentage of tribal population was low (Uttar Pradesh and adjacent Bihar); and (v) the socio-economic progress was slow (Rajasthan, Madhya Pradesh, Andhra Pradesh, Bihar and Dadra and Nagar Haveli). These apart, the index value was also moderate in those scattered districts where the proportion of Christian tribal population was high (Tirap, Tuensang, East Khasi Hills, North Tripura, Kanniyakumari, West Siang, Daman, Cannanore, Valsad, Nicobar Islands and Goa) and which were highly urbanised (Haora, Hyderabad and Pune.)

Thus, moderate literacy differential index was typical of areas with notable percentage of Christian tribal population, significant contribution of Christian missionaries in the field of education, expanding mining activity and rapidly growing urban/industrial settlements.

C Areas of High Literacy Differential

There were about 129 districts in the country in which the differential index was more than 60. Of these, 19 districts were such where the disparity between non-scheduled tribe literacy and scheduled tribe literacy was very high being more than 80. In all these districts, less than 20 per cent of scheduled tribe population could be classified as literate. Here, the literacy among scheduled tribe population was mainly scheduled tribe male literacy as more than 95 per cent of the scheduled tribe female population could not read and write. Broadly speaking, the literacy differential between the tribal and non-tribal population in the country was positively correlated with non-scheduled tribe literacy ($+0.1739836$) and the percentage of scheduled tribe population ($+0.1245518$). The prevalence of subsistence agricultural economy, low level of urbanisation, long history of Zamindari system, and wasteful expenditure on rituals and ceremonies in most of the districts had led to general poverty among tribal masses (Lal, 1987, 42). Economic exigencies forced their children and women to participate in economic activities with a view to augmenting the family income. Similarly, the functional utility of education for the scheduled tribe females was limited due to the kind of activities they were engaged in.

The conditions were more pitiable in the countryside (Sagar, 1990, 162). Areas of high literacy differential index covered large parts of western India covering large parts of Rajasthan, of Madhya Pradesh and of Gujarat and adjacent districts of Maharashtra; Telengana - Dandakaranya region; eastern Chota Nagpur plateau; Coromandal coastal plain; Nilgiri Hill region; Western Arunachal and parts of Uttar Pradesh and Bihar.

The western India comprising most of Rajasthan, Gujarat, Madhya Pradesh and adjacent districts of Maharashtra constituted the large compact area of high differential index ranging between 60 and 90. It reached 89.05 in Morena district of Madhya Pradesh where only 3 per cent of scheduled tribe population was literate (Map 3). Generally, the literacy rates among scheduled tribe population ranged between 5 per cent and 2 per cent. In most of the districts, the female literacy rates were even less than 1 per cent (Map 52). In parts of Madhya Pradesh and adjacent parts of Rajasthan, mass illiteracy of tribal females was the characteristic feature. This non-Christian tribal area was characterised by predominantly subsistence type of economy which warranted participation of each member of the family in the economic struggle. The prevalence of strong prejudices against females' education in particular, was another impediment in the progress of literacy in this tract. Moreover, the widely spaced schools, paucity of tribal female teachers, high incidence of bonded labour, a stronghold of feudal landlords (on both society and economy) (Vyas, 1980, 40), poor development of non-agricultural sector, general apathy of the local princely rulers (Chandna, 1989, 86), rigidity of tribal culture and higher rate of dropouts (Chalam, 1987, 152) had accentuated the difference between the non-tribal and tribal literacy in the region. It may be pointed out here that high differential index in this socially economicaly backward area was also attributable to the low literacy rates in both the social groups in general. Whereas, in Gujarat and Maharashtra, the high disparity index was the product of very high non-tribal literacy that was consequent upon higher degree of urban-industrial development of the region.

The Telengana-Dandakaryana region was another compact area of high differential index that covered northern districts of Andhra Pradesh, southern districts of Orissa and the adjoining districts of Madhya Pradesn. Among these, the districts of Khammam (80.16); Warangal (80.68); and Nalgonda (81.22) exhibited very high index values of more than 80. Both male and female literacy rates among scheduled tribe population, were low. The non-tribal literacy was generally below the national average. Thus, the high literacy differential index in the region resulted from the low level of education among the scheduled tribes as very little attention had been paid to their social and economic progress by the Nizams. The continuation of deep rooted feudal tendencies was responsible for the overall exploitation and discrimination of tribal population *en masse* (Chakrabarti and others, 1973, 104). The generally poor conditions of the tribal population inhibited their children from attending the educational institutions. Most of the tribal population had a residence in relatively inaccessible areas where

the modern educational facilities had still not reached. Above all, agro-forest based subsistence type of economy, the conservative attitude of the tribal people towards education, high degree of indebtedness, high level of rural isolation, wasteful use of money on drinking, large variety of tribal dialects and the high proportion of non-Christian tribal population were the major impediments in the propagation of education in these tribal areas (Raghavulu and others, 1988, 79-80).

Next in importance was the Coromandal coastal plain covering the districts of southeast Andhra Pradesh and the adjacent districts of northern Tamil Nadu, where the index was in the vicinity of 70. The literacy rates here were between 8 and 15 per cent. The female literacy rates were less than 10 per cent. However, the proportion of scheduled tribe population was less than 10 per cent, and it was largely rural in its residence. In this region, the most common occupation adopted by the rural population in general and the scheduled tribe population in particular was agricultural labour (Census of India, 1983, 24-29) for which education had little relevance. Chronic poverty, largely backward agricultural economy, age old practice of *Podu* (shifting) cultivation (Raghavalu and others, 1988, 79), lack of non-agricultural employment opportunities, deep rooted Zamindari system, high dependency ratio, low status of women, hardened attitudes of tribal population towards modern culture and the long history of administrative neglect (Pratap, 1972, 232-233), accounted for the large differences in the literacy rates of scheduled tribe and non-scheduled tribe population.

The eastern parts of Chota Nagpur plateau covering southern Bihar and northern Orissa and adjacent districts of West Bengal constitute another compact contiguous area of high literacy differential. This area had high proportion of non-Christian tribal population. The primitive and orthodox outlook of the tribal people towards modern cultural values, a long history of their residential segregation in hill areas, and the prevalence of conditions of abject poverty accounted for high rate of illiteracy among them (Singh, 1988, 178). These apart, most of the tribal population was still engaged in primary occupations (mining and forests), agricultural labour (Census of India, 1983, 224-227 and 332-345) for which literacy had little relevance- The index in West Bengal would have been still higher but for the high proportion of Muslim and scheduled caste population which arrested literacy rates of general population to some extent.

Still another important area of high differential index was the Nilgiri Hill tract. It included the districts of Wayanad, Palghat, Malappuram and Kozhikode of Kerala; the districts of Nilgiri and Coimbatore of Tamil Nadu; and the Kodagu district of Karnataka where the *Kadars*, the *Kalapantaram*, the *Paniyans*, the *Palliyans*, the *Todas* and the *Kudhkurubas* were still in the food gathering stage and more dependent on primitive level of farming (Kuppuswami, 1984, 194). In these highlands, the bulk of scheduled tribe population constituted a large proportion of unskilled labour on plantations. The poor standard of living and high incidence of child and female participation were responsible for keeping

their literacy rates low. In addition, most of the educated scheduled tribe persons had the tendency to outmigrate for better employment.

A few areas of Arunachal Pradesh, like that of East Kameng, upper Subansiri, lower Subansiri and West Kameng also exhibited very high index values of 65 and above. In all these districts, the scheduled tribe literacy ranged from 3.84 per cent in East Kameng to 12.61 per cent in West Kameng. Mostly it was non-Christian tribal population. These districts comprised one of the socially and economically backward areas of the country characterised by stagnant subsistence agricultural economy; high degree of rural isolation ; extreme diversity of languages; inadequate educational facilities; frequent residential mobility associated with shifting cultivation and the tribal hostility towards any change or modern values (Rustomji, 1981, 246-251). All these factors together were responsible for wide disparity in the literacy rates of scheduled tribe and non-scheduled tribe population in the region.

The differential index was also high in other less developed districts of Surguja, south Tripura, east Bihar and Mon where the proportion of non-Christian tribal population was relatively high. The socio-economically backward districts of Uttar Pradesh where the number of scheduled tribe population was negligible also displayed high index.

Thus, high literacy differential index between scheduled tribe and non-scheduled tribe population was found in those areas that had widespread poverty, overwhelmingly subsistence nature of agricultural economy, high proportion of agricultural workers, high participation rate of women and children in economic struggle, tradition of frequent residential mobility, long feudal history, inadequacy of educational institutions, paucity of tribal female teachers, non-Christian tribal population and overall backwardness. Broadly speaking, areas of high differential index correspond to the areas of low rates of general literacy in the country.

D Areas of Negative Literacy Differential

These covered all those districts in which the percentage of scheduled tribe literate population was more than that of non-scheduled tribe literate population. There were 41 such districts in all. These were largely confined to northern India. These included the hill areas of Himachal Pradesh, Uttar Pradesh, Sikkim Manipur and Mizoram; and the plain areas of Uttar Pradesh, Bihar and Tamil Nadu (Tiruchirappalli) where the literacy rates among scheduled tribe population were more than 30 per cent. In the hill areas of Himachal Pradesh and Uttar Pradesh, the change of status of certain communities, particularly the Bhotiyas to the category of scheduled tribe during the Chinese invasion on Tibet (Mandelbaum, 1972, 612-613) were responsible for increasing the proportion of literate population among scheduled tribes. Moreover the investment of central government on developmental activities in border areas, and long history of inter-border trade have made their own contributions in this regard. Similarly, in Sikkim, better economic conditions, higher degree of socio-political awareness among Bhutias Lepchas; age

old association with trade and commerce and a high rate of participation in miscellaneous services, e. g, defence etc., and large scale inmigration of literate Nepali population (Rustomji, 1981, 216 and 238) were some of the factors associated with the negative literacy differential index. In Mizoram and Manipur, where the percentage of Christian tribal population was very high, the Christian missionaries had also played a vital role in spreading education among the males and females, young and aged and rural and urban population. In the remaining areas in this category, the scheduled tribe persons who were numerically insignificant were mostly literate inmigrants engaged in miscellaneous services.

Thus, negative literacy differential index areas were those where the scheduled tribe population was economically prosperous ; It had an age old association with trade and commerce; it had been influenced by Christian missionaries; and its number was negligible.

CONCLUSION AND POLICY IMPLICATIONS

In 1981, only about one-sixth of the scheduled tribe population in India was literate. Among rural areas, only one out of every seven scheduled tribe persons could read and write. The literacy rates among scheduled tribe females were still more depressing as only one in every 13 females was recorded as literate. Female literacy among scheduled tribes in rural areas was almost non-existent. Thus, at the Indian tribal scenario, the literacy was mainly the male literacy. The mass illiteracy among scheduled tribes was related to their long

history of socio-cultural isolation, age old association with the outdoor activities like primitive agricultural practices; appalling poverty; low level of rural-urban interaction : ignorance about welfare schemes; tradition of early marriage among girls; and reticence in general.

The scheduled tribe literacy (16.35 per cent) was only two-fifths of non-scheduled tribe literacy (37.90 per cent), implying an index value of 56.86. Their differential index was relatively more pronounced among females (69.42). The high literacy differential between the tribal and non-tribal population was associated with the general backwardness of tribal population which had suffered physico-socio-psychological isolation for centuries. Other factors contributing to this dispart included limited infrastructural facilities, appalling poverty, indifferent attitude of the administrators, and large scale indebtedness and exploitation.

However, the Christian tribal areas and the non-Christian tribal areas displayed different differential index. While the former were characterised by low differential index, the latter displayed wide disparity between the literacy rates of the two groups. No wonder, the differential index was correlated inversely with the proportion of Christian population. A long history of missionary activities in the areas now dominated by Christian tribes has made its own contribution in the social advancement of such areas.

Spatially, wide regional variations in this literacy differential index have been observed (Map 39), By and large, a negative correlation between differential index and general literacy pattern has been observed, implying low differential index in high general literacy

areas of western coasts, Vidarbha and the northeast; high differential index low literacy areas of central highlands, parts of western India and most of Andhra Pradesh. The low differential index was characteristic of areas having high proportion of Christian tribal population, rapidly growing urban centres, well developed network of means of transportation and a small size of scheduled tribe population. By contrast, the areas of high differential index had a long history of zamindari system, continued feudal attitudes, subsistence economy, high degree of rural isolation, inadequacy of educational facilities, especially for females and high percentage of non-Christian tribal population. Interestingly, the areas with negative literacy differential index were those where either the scheduled tribe people were numerically insignificant or the impact of Christianity was too strong.

Thus, in nut shell, in order to remove these regional disparities, the attack might be of three fold : One, voluntary and in-voluntary agencies in full force might be deployed for the affected non-tribal groups especially in non-christian belt. Secondly, full and compulsory reservation might be made to the literate rural tribal female population. Thirdly, reservation criteria might be based on entry and exist principle[4] particularly for urbanites in the country.

ACKNOWLEDGEMENT

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ETHNIC STRUCTURE OF CALCUTTA
A Study of Minority Communities

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The ethnic structure of big cities experiencing fast growth is in a state of flux. This is peculiar of metropolitan centres such as Calcutta where ethnic communities are not only segregated in particular localities but are also moving out to other destinations. This paper focuses on the ethnic structure of Calcutta, a metropole with a long colonial history.

Introduction

In any city, groups of people with common characteristics may be found concentrated in a particular area and partially segregated from other sections of the population. This segregation, based on ethnic status, evolves an ethnic mosaic of the city. Ethnic segregation cannot be separated from segregation based on other characteristics, such as socio-economic status, as these factors operate simultaneously. Minority ethnic groups are more segregated but the poor of all ethnic groups are more concentrated in one area and are segregated from the affluent than from each other. Several sets of factors tend to operate to produce the residential clustering of minority groups. Their influence varies with specific situations but a review of the world reveals a numbe of common elements.

The population structure of an urban centre or a metropolitan city is significantly influenced by migrant population in some way or other. These minority migrant commnnities are largely engaged in specific occupations which are neither suitable for the native population nor can be handled by them properly. The migrants of Calcutta also have specific occupations. These occupations range from the informal sector to big industry and trade. The natives of Calcutta, i.e. Bengali, are mostly engaged in services leaving other sectors to the migrant communities. The Chinese are associated with tanning, shoe making, restaurant and beauty parlour services and the Jews are generally engaged in confectionary, general merchandise and small shops. The parsee, the Marwari and the Gujaratis are known for the establishment of big industries and business houses in Calcutta. But the people who started migrating into Calcutta from the four states of South India and Maharashtra in this century are mainly engaged in services.

So, the segregation in a city is based not only on the ethnic status but also on the occupational pattern. It is true that a particular community always has a specific image of its food-habits, customs, rites, rituals and occupational structure. It is essential to find out the true picture of these communities to understand the ethnic structure of a city.

The Objectives

The main objective of this study is

to understand the distribution, socio-economic status, behaviour and life-style of some minority communities of Calcutta. The distribution of any minority group reflects among other tthings its attitude towards the host society. The minority communities in calcutta hardly occupy a position of self-sufficient isolation, but some groups have preserved their cultural identity through the development of services to meet their own needs. These services may range from petty trade to professional services of medicine and law, and commonly include religious institutions, ethnic newspapers, theatres and associations. The behaviour and life-style of the minority group is inevitably modified through its contacts with the host society but many old values and customs are still retained due to this ethnic concentration.

The immigrants from different parts of India and various countries of the world have made Calcutta their home. This study will concentrate only on three overseas minority communities, i.e. Chinese Jews and Parsees and one community with mixed origin e. g. Anglo-Indian.

The Study Area

Earliest settlement of Calcutta city was developed by the East India Company in the 17th century. The future city of Calcutta was born on the 24th August 1690 at the village of Sutanuti in the east bank of the river Hoogly. The three large villages named Sutanuti, Kalikota and Gobindapur, which are the base of Calcutta city, stood along the east bank of the river Hooghly; these villages roughly cover the area from Baghbazar to Barabazar, thence to Esplanade, and from there upto Hastings, of the present day.

The English rulers from the very beginning had planned Calcutta in the typical colonial pattern. The white town grew around Dalhousie Square or Lal Dighi and the native or the black town spread along the northern part of the city. The dividing line between the native town and the white town was the present Lenin Sarani or the Dhramatala Street of the past. As the white town grew in size, it spread along Chowringhee towards the south and the black town moved northward and eastward.

For the first one hundred and fifty years, Calcutta remained a purely commercial-cum-administrative-cum-service centre. To support this commercial and service centre, large number of people not only from different parts of India but various parts of the world have migrated to settled in the city. In this city, non-Bengalis Jews, Parsees, Chinese, Gujaratis and Marwaris have created an intermediate zone. The ethnic character of the cosmopolitan zone of the intermediate town was to a large extent derived from the intense concentration of very small groups of people of diverse ethnic origins in an extremely limited area. In Calcutta, this cosmopolitan zone is more or less situated within Bowbazar in the north, Park Street in the south and Lower Circular Road in the east, though there may be some pockets, of later immigrants from South India who are concentrated in the southern parts of the city. The Muslims are concentrated in south-western part in the dock area along with other poor people of different ethnic origins.

Calcutta city has experienced significant

areal expansion as a result of the process of urbanisation and the partition of the country in 1947. So the original segregation pattern of the British period has also undergone change. Therefore, migrants of Indian origins like the Marwaris and Gujaratis, have shifted to the southern parts of the city. But Jews, Chinese, Anglo-Indians have preferred to stay on in their original locations.

Main Findings

This study has focussed on the four minority migrant groups of Calcutta City. The Chinese, Jews and Parsees are migrant communities. Some members of these communities had migrated to this city in different periods of the 18th century either as traders or as job-seekers. The fourth ethnic group, i. e. Anglo-Indians are of local origin due to mixed parentage.

Chinese : With their distinct 'social visibility,' colour, physiognomy and language acting as barriers to their identification with the rest of the population, the Chinese are supposed to face problems of adjustment in the local population. The inflow of the Chinese to India has in recent years stopped. The older generation that had migrated from China is dying out through natural process while those born here are gaining numerical predominance within the community. Though the Chinese population is spread throughout the city, their original concentration was around Lower Chitpore Road, Bowbazar Street and Bentinck Street. These areas are either cosmopolitan in nature or are in closer proximity to the districts of Muslims and Anglo-Indian population. This may probably be partly due to their food habits and occupational pursuits. At present, a large Chinese population is found in the eastern outskirts of the city around Topsia and Tangra areas.

The Chinese society in Calcutta is variously segmented. These segmentations follow cultural, ethnic, linguistic and occupational lines. In Calcutta all the Chinese have not achieved identical prosperity in their economy and hence another kind of segmentation, along the class line, has also emerged. Among the Chinese of Calcutta there is a division between Buddhists and Christians. Apart from religion, language and dialect are other important factors dividing the Chinese into a number of groups. The dialects spoken are Hakka, Fukein, Cantonese and Huipie. The Chinese prefer to mix with the people of their own dialect groups, to work in the shops and factories owned by one's own dialect speakers. The various dialects were reported to be mutually unintelligible, so the Chinese of different dialect groups find it difficult to communicate with each other. But the script of all dialects, however is same.

Some of the main occupations of the Chinese in this city are shoe making, tannery, carpentry, dry cleaning, restaurant and beauty parlour services. Among other occupations are making of paper flower, piggery, making and selling of vinegar, sauces etc. Some Chinese girls, mostly Christians, are employed as Steno-typists in the commercial firms. There is a substantial number of dentists, some of whom

have learnt dentistry at home. There are about one hundred big and three hundred small tanneries at Tangra. All, excepting a few, are owned by the Chinese. Shoe making and carpentry shops are located mainly in Central Calcutta and beauty parlours are scattered all over the city.

Cleavages based on economic status are no less striking among the Chinese. The Chinese community groups concentrated in Tangra and Topsia area are economically affluent than their counterparts in Central Calcutta. Original residents of central Calcutta are migrating to other parts of the city after attaining affluence.

Though segmented internally, the Chinese community has common club, school, burial ground etc. which manifests the unity of the Chinese as a community. The festival of 'Chinese New Year' (Sing Yan) is observed as a national festival by all Chinese. There are five Chinese schools run by them. In these schools, Mandarin the national language of the Chinese, is taught besides English. There are two Chinese newspapers to cater to the needs of the various segments and act as medium of mass communication. The burial grounds of the various dialect grpups are located at Tangra. They do not share cemetery with non-Chinese co-religionists.

The boundary line between the Chinese and other communities is sharp not only on account of their socio-cultural features but also racial characteristics. The interrelationship with the local population is mainly in the economic sphere while in the other spheres it is minimal. There are few cases of inter-marriage with the local community despite the long residence of the Chinese in Calcutta.

So the inter relationship of the Chinese with the wider society mainly in the sphere of economy, does not generally go beyond the secondary relationship. Common religions such as Budhism and Christianity do not break the isolation in any significant way and exclusive temples and churches of the Chinese bear testimony to this fact.

The Jews : The first Jew of this city had migrated from Syria in the 18th century. Like the Chinese, The Jews are also identified separately by their colour, language, religion and customs from the host community. The inflow of Jews in India has stopped now. In fact, the outmigration of this community in the '70's from Calcutta was alarming. Jews started leaving Calcutta as soon as their homeland in Isreal was established. The independence of India also was a factor for the Jew to leave India. At present there may be less than a hundred Jews in Calcutta and most of them are more than forty years old. Unlike the Chinese, the Jewish population is concentrated in one area, i. e. around Bowbazar Street, Rippon Street, Sudder Street and Park Street.

The Jewish community in Calcutta was very closely knit. It was as if the community was an extended family ; indeed, due to constant intermarriage among its members, many of them were related to one another in some way. The strong legacy of community-mindedness was handed down by the founders of Calcutta Jewry. Wealthy members of the community founded various trust funds for the Jewish poor.

Most of the Jews in Calcutta are engaged in trade or business. Economically, Jews in Calcutta are well-off. Previously, there were

a large number of Jewish girls employed in various commercial firms.

Jewish community in Calcutta represent a blending of both oriental and western cultures. While home life, food habits and religion bear heavy imprint of traditional culture, their attire, speech and social mixing reflect the impact of Western culture influence. The Jews never take meat or chicken if it is not 'Kasher'. It means that the animal must be specially slaughtered by a qualified and authorised 'Shochet'. Originally, the Jews wore Arabian garments for decades but finally they have adopted European dress. The Jews in Calcutta generally speak in English with outsiders. It is interesting to note that throughout their long history as a minority, the Jews were indifferent to indigenous Indian language. They still speak Arabic at home, mainly the older generation. But very few of them speak and read Hebrew.

There are numerous Jewish institutes in Calcutta. The first synagogue, Veveh Shalom, was established in 1825 in north Calcutta. There are Jewish Girls' and Boys' schools and hospitals founded by them, It is unfortunate that they have no Jew student in these schools for the last 15 years. The last Jew teacher retired a few years back. Their synagogue is also devoid of regular 'Rabbi'.

The inter relationship of the Jewish community with the local people in the social sphere is very unique. In Calcutta the Jewish community had flourished under British rule. They wanted to copy the English and looked down on the Indians. After Independence, they have kept their social relationship with Parsees, Armenians and Indians with high economic background.

Though they are few in number, still they follow their religious festivals as per their tradition. It is interesting to note that though the Jews are present in Calcutta for the last about two hundred years, they did not get assimilated with local community. It is mainly due to their orthodox background. As a general rule, the Jewish religion does not permit marriage with people of other religions. The Jewish community is very small with religious and good moral background.

Parsees : The Parsees are an ethno-religious minority in India. To be exact, one can call them an 'Indian' minority only with certain reservations. Their real homeland was Persia which they left over 1200 years ago to save their religion from being Islamized by the invading Arabs.

The recorded history of the Parsees in Calcutta begins in 1767, when their early settlers came here from Surat as traders. Though the Parsee population is spread throughout the city. their original concentration was more or less in the same area like the Jews.

Original Parsees were illustrious entrepreneurs. Parsee families were engaged mainly in jute, textile and shipping business. But Parsee entrepreneurship lost its impetus soon after independence. It would be unfair to say that their empires had been built solely on British patronage, but it is true that as the British left India, the once burgeoning Parsee enterprise in this part of the country began its downward slide into mediocrity. The Calcutta Parsees, however, have not become a weak community. Its men and women have scaled the heights of their careers. Many are at the helm of the

city's most prestigious companies and many more have made their mark in the professions, especially medicine.

There are only 448 Parsee families comprising 1220 individuals in the city. Nearly 60 percent of the Parsees are older than forty years of age.

The Parsees in Calcutta have various religious and social institutions. Wherever these Parsees went, they established place of worship. They have two fire temples in the city. The Parsees have their own Tower of Silence where they keep their dead to be eaten up by vultures. Other institutions are; Calcutta Parsee Club, Calcutta Parsee Amateur Dramatic Club, the Parsee Zoroastrain Association, Calcutta Zoroastrian Stree Mandal, etc.

The Parsees have good social and economic relationship with other communities. The Parsees are known as a good friendly community among local population. But there are few cases of intermarriage with the local community despite the long residence of the Parsees in Calcutta. The Parsee religion does not encourage intermarriage with other religion.

Anglo-Indians : The Anglo-Indians in India as well as in Calcutta represent a community which is the blending of Europeans and indigenous people. The origin of Anglo-Indians goes back to the early arrival of the Europeans in India - first the Portuguese and later the British, Dutch and French. Like other minority communities, Anglo-Indians are concentrated around Park Street, Elliot Road, Suddar Street etc.

The Anglo-Indians were a priviledged class during the British Rule. They were employed in Customs, Post & Telegraph, Police, Railways, Docks and various other government jobs. Anglo-Indians were always marginal in both social and cultural aspects in Indian societies.

After independence Anglo-Indians faced an identity crisis. They lost the priviledge of getting jobs with minimum qualifications. But the Anglo-Indian men are not keen on higher studies. So, obviously there is a lot of unemployment within the Anglo-Indian men. The Anglo-Indian women, on the other hand, are the main earners in the family. Anglo-Indian men generally work either in hotels or in manual and clerical jobs. Anglo-Indian women are preferred as office secretaries, nurses, etc. They also work in hotels or offices as receptionists, telephone operators, performers in night clubs, housekeepers, etc. Anglo-Indians generally belong to lower-income group.

Anglo-Indians were commonly excluded in the past from the organised life of other Indians due to their language, food habits, dresses and life style. Now-a-days, there is a tendency among Anglo-Indian girls to marry outside their community. An indicator of change in social relations is the intermingling of children and youth of Anglo-Indians with other communities.

Conclusion

Calcutta city and West Bengal State as a whole is declining economically after the independence. There is a tendency among the minority communities to outmigrate from Calcutta. The Jews and Anglo-Indians have outmigrated to USA, UK, Canada and

Australia. Both these communities were facing identity problem due to their European upbringing. The Chinese, on the other hand, started migrating after the 1962 War. It seems that the Chinese all over India became somewhat victimised for the 1962 War. They are obviously not sure about their present status. They have a tendency to migrate to South-East Asian countries like Taiwan, Hongkong etc. The parsees are the only overseas minority community who have not migrated outside India after the independence. But large number of them have migrated to Bombay due to the decline of Calcutta as an economic centre.

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