CHAPTER 1

INTRODUCTION

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STATEMENT OF THE PROBLEM

Diversities and inequalities are discernible in almost all types of physical and cultural phenomena at various spatial scales ranging from global to local. They also distinguish themselves as urban and rural.

There is an ancient world-wide tradition of differentiating rural and urban people. Every country displays a specific history of the so-called rural-urban dichotomy. Rural-urban differences get revealed in occupation, environment, size of community, density of population, heterogeneity, social differentiation, mobility and system of social interaction. The rural areas are generally at the receiving end of these inequalities. The differences between rural and urban populations represent contrasts between the old and the new. Whereas, the urban sector contains most of the articulateness, organization and power, the rural areas with ever increasing population pressure on land and natural resources, the rise of rural cities and aggravation of landlessness, the worsening of the welfare of the rural poor and in many instances absolute decline in income of the lower 40 per cent of the population, the environmental degradation and the breakdown of rural society present an alarming perspective.

Notwithstanding the fact that rural and urban areas constitute a functional system of settlements in a given region, the rural-urban divide is a part of the prevalent political ethos in India. The urban is said to symbolize India (exploitator or ruler) and the rural Bharat (exploited or ruled). Rural is portrayed as indigenous and the urban something exogenous meant to subjugate and exploit the former. It is essentially a thing passed to us by our predecessors. Most of the development during the British rule was urban biased. Urban areas
were primarily the centres of administration and power, collection centres of export-oriented raw materials and distribution centres of imported manufactured goods. In urban areas, the facilities of good education, health, water-supply, sanitation, electricity and other civic amenities were easily available, which, in turn, raised the standard of living of people in these areas. Most of the industries were also established in urban areas. So, the urban population differed strongly from rural population in distribution, density, way of life, structure and growth. Because of this favouritism for urban areas, the gap between rural and urban areas increased and became so noticeable that cannot be ignored. Cities came to be seen as the exploiter of the countryside (rural areas) (Krishan, 1991).

After Independence, the main aim was to fill-up this gap between rural and urban areas. So, various programmes were launched to develop the rural areas, to mention a few - Community Development Programme, Multi-Purpose Irrigation and Power Projects, Integrated Rural Development Programme, Rural Electrification, Establishment of Small Scale and Cottage Industries, Agricultural Development Programmes, Minimum Needs Programme, Special Areas Programme, National Rural Employment Programme, Training Scheme for Rural Youth for Self-Employment, Scheme for Providing Self-Employment to Educated Unemployed Youth, Poverty Eradication Programmes, Rural Landless Employment Guarantee Programme and Nehru Rojgar Yojna, etc. All these schemes were started to boost up the rural areas, to come at the level of urban areas.

Inspite of the fact that there has been a significant shift in focus from urban based strategies to rural development priorities in regional development planning by Government of India, the problem
of rural-urban disparity still remains. This gets best reflected in the demographic attributes.

BASIC OBJECTIVES OF STUDY

The aim of the present work is to describe and interpret the regional aspects of rural-urban differentials of some select demographic aspects of the Indian population, on the basis of statistical analysis and mapping of the 1991 census data for all the 452 districts (excluding the state of Jammu & Kashmir) in the country. In 1991, there were 25 states, 7 union territories and 466 districts in the country.

The main objectives of study are:

1. To study the trend of rural-urban differentials in India (state-wise) for the demographic aspects like size of household, vital rates, sex-ratio and literacy.

2. To study the spatial patterns of rural-urban differentials (district-wise) for the demographic aspects like size of household, vital rates, sex ratio and literacy.

It is primarily an empirical investigation of the rural lag in literacy, urban lag in sex-ratio, size of household, etc. in relation to the economy, society, urbanization, industrialization, modernisation and educational history of different parts of India. Rural-urban differences are essentially a function of the differential rates of change occurring in towns and villages. The degree of urban influence and the intensity of rural-urban interaction are evidently the two major factors involved in the reduction of disparities between urban and rural sex-ratio, literacy rates and in other demographic attributes. Keeping in consonance with the purpose,
only those aspects for which the data was available, could be chosen for study. These were size of household, sex-ratio, vital rates, and literacy.

**REVIEW OF LITERATURE**

There are some schools of thought that question the existence of a rural-urban dichotomy. Belonging to this stream are scholars who explain that there is no such rural-urban dichotomy, but these are two extremes of the continuum, i.e. the distribution is not really a two-fold one in which one part of the population is wholly rural and the other wholly urban, but a graduated distribution along a continuum from the least urban to the most urban or from the most rural to the least rural. Consequently, the line that is drawn between rural and urban for statistical or census purposes is necessarily arbitrary (United Nations, 1950).

In a regional seminar on rural-urban differential in South Asian countries held in Delhi in December 1962, under the direction of Professor (Ms.) Ruth Glass, Director Research Centre for Urban Studies, University College, London, the main emphasis was given to the review of criteria of urban-rural differential in which Ruth Glass (1962) felt that in most areas of the world, rural-urban differences are becoming inconsistent and rather faint. Besides, in industrialised world, the main current of development is not the urban growth in physical and occupational terms, but the urban diffusion in cultural terms.

Dewey (1960) said that there is no such thing as urban culture or rural culture but only various cultural contents somewhere on the rural-urban continuum. He said that there can be and most assuredly are, small rural communities which are secular, civilized, dynamic
and highly literate as well as large, religious, essentially primitive, illiterate and relatively static urban communities.

While making a study of United States, Queen and Carpenter (1953) observed that there is a continuous gradation from rural to urban rather than a simple rural-urban dichotomy and as human communities are arrayed along this rural-urban continuum, consistent variations occur in patterns of behaviour.

Oscar Lewis, an anthropologist, also doubts that there are any criteria for universally distinguishing rural from urban environments. Louis Wirth (1938) explains that the city and the country may be regarded as two poles in reference to one or the other of which all human settlements tend to arrange themselves. Similarly, Sorokin and Zimmerman (1929) said that there is no absolute boundary line which would show a clear-cut distinction between the rural and the urban community.

Inspite of the fact that certain schools of thought question the existence of a rural-urban dichotomy (Pocock, 1960), the rural and urban, as opposing concepts exist since the dawn of history. There were only a few rural-urban differences in times of nomadic life but they started increasing as the cities were founded. The rural-urban differences are a function of the process of development, origin normally being the urban place. The nature of change varies from society to society and from one historical epoch to the next. The amount of difference between the two is in part a function of changes in the rural sector which originated in cities. As the diffusion of development takes place, in time perspective, these rural-urban differences tend to minimize. So, it can be emphasized that the magnitude of rural-urban differential depends upon the differential rates of development (Gibbs, 1961).
The comparative analysis of these differences has always revealed societies in transition. Societies tend to be dominated by either rural or urban social structures. Therefore, when rural-urban differences are most pronounced, the societies are experiencing the greatest dynamics of social change. There have always been rural-urban differences, but they were less important in colonial period and 19th century and became prominent with passage of time. In contrast to developed world where rural-urban differences have rapidly diminished in the face of advanced urbanized social organisation, these differences in Third World countries are at their peak in the present century. India falls in line with the latter. The major cause of increasing rural-urban differentials in India is that with factory development came job proliferation due to which migration increased and streams of migration were primarily rural to urban. These developments contributed to marked differences between urban and rural ways of life. (Taylor and Jones, 1964)

Unequal allocation of resources among rural and urban areas also resulted into wider disparities between the two. But if the resources are allocated equally without urban bias, the results will be more encouraging in rural than in urban areas. Even after the existence of urbanized social organization in developed world, some differences continue to exist but they are more of degree than of kind. They present a distortion of development process (Lipton, 1986).

Similarly, Stewart (1958) describes that the distinction between rural and urban population is entrenched in most census reports and in many and varied demographic series. Vital statistics, economic and sociological data in great profusion have been compiled, which distinguish between rural and urban components. The rural-urban
dichotomy is often used as a crude yardstick for international comparisons and as a rough measure of the socio-economic evolution of each country. All these series assume that the distinction between rural and urban population is relevant and significant for the social sciences. So, the scholars of this school of thought adhere to the view that there exists rural-urban dichotomy at one or the other level.

GEOGRAPHY AND RURAL-URBAN DIFFERENTIAL STUDIES

The available literature on rural-urban differentials reveals that the issue has received slight attention from geographers.

Baker (1986) in his study of northern Ethiopia explained that distinction between rural and urban areas is firmly established in census reports and social and economic statistics.

D'souza (1982) examined the inter-state differences in the rural-urban literacy rates for the year 1981.

Lipton (1977) believes that among different kinds of class conflicts, the one between rural and urban is most critical. A strong urban bias in allocation of resources in developing countries is underlined by him. The suggestion is for treating the urban and the rural as separate entities and for giving a priority to the rural areas in development investment.

Smith and Zopf (1970) have examined the inequalities in education in U.S.A. in terms of sex, residence, colour or race and state.

Zachariah (1962) said that migration is a vital factor in rural-urban differential. This type of migration blurs the rural-urban differentials generally, though may increase the differences also. For
example, migration of literates from rural areas to urban areas might affect the educational standards of both areas.

Kingsley Davis (1951) observed the differences between city and country (rural-areas). In case of India, in his view, the rural-urban differences were expected to increase immediately after Independence, especially in literacy. Davis felt that while cities of new world represented a diffusion of western civilization, the cities of India represented a partial diffusion.

All these studies mainly stress on the trends in rural-urban differentials, factors or determinants of rural-urban differentials and urban bias in allocation of resources.

A few geographers have studied the rural-urban differential for various demographic parameters at macro and micro scales.

Krishan (1991) recognized wide rural-urban gaps in some select demographic and social indicators while critically examining the rural-urban relations in India. These aspects were birth rate, death rate, infant mortality rate, sex ratio, literacy, size of household, and percentage of households with tap water supply and electricity. He observed that there exists a wide gap between rural and urban areas in respect of physical quality of life.

Jolly (1991), while describing strategies to attain Universal literacy in India by 2001, identified the rural-urban differentials in literacy.

Premi (1991) studied the literacy scenario in India and found that as a result of National Policy on Education and other new policy thrusts, the literacy rates have improved gradually despite
tremendous increase in population, but the rural-urban literacy differentials continue to be high even in 1991.

Nain (1988) examined inter-state change of rural-urban differentials in literacy, vital rates, sex ratio and size of household in India during 1971-81.


Sinha (1979) observed the rural-urban differentials in fertility and mortality rates.

Gosal (1979) made a study of literacy in spatial perspective and found that as in several other characteristics of population, so in literacy and education, the villages and towns in India stand in marked contrast to each other. Krishan and Chandna (1974) explained that rural-urban differential in literacy had an adverse correlation with general literacy. Desai (1969) calculated rural-urban differentials in sex ratio for India as a whole. Gosal (1964) studied the rural-urban differentials in literacy in India and said that the rural and urban areas stand in marked contrast to each other in the field of literacy.

Clarke (1960) made an attempt to find out the differentials in rural-urban sex-ratios in England and Wales.
Burnight *et al.* (1956) examined the rural-urban differential in fertility in Mexico and concluded that Mexican fertility is subject to the differential effect of urbanization in much the same way as has been fertility in the industrialized countries of the West and urban dominance significantly reduced the fertility ratio.


Finally, there are those studies which evolved some new methodology to study rural-urban differentials. Ogburn (1936) observed that the rural-urban differences within regions are frequently of greater magnitude than inter-regional differences, when the latter are measured by a gross ratio or average pertaining to the region as a whole.

Gosal (1964) had used the simple technique of scanning the two sets of data (male literates and female literates), visually comparing the two mapped patterns and getting the ratio between the two groups.
Sopher (1974) made a notable contribution in computing differentials by using his own formula, i.e.

\[ D_2 = \log \left( \frac{X_2}{X_1} \right) + \log \left( \frac{100 - X_1}{100 - X_2} \right) \]

Where \( X_2 \geq X_1 \) and \( X_1 \) and \( X_2 \) are demographic indicators of *alphas* and *non-alphas* respectively.

Krishan and Shyam (1978) described the regional aspects of the rural-urban differential in literacy in India on the basis of 1971 census data by using the formula, i.e.

\[ ID = \frac{Urban-Rural}{Total} \]

Krishan and Rana (1980) studied rural-urban differentials in size of the household in India by using crude method of rural-urban differential, i.e.

\[ ID = Rural - Urban \]


Victor S.D’Souza (1980) evolved a new formula for the measurement of educational inequalities among scheduled castes of Punjab, i.e.

\[ \text{Coefficient of Equality} = \frac{A/B}{C/D} \times 100 \]
Where,

\[ A = \text{Scheduled Castes Literate Population} \]
\[ B = \text{Scheduled Castes Total Population} \]
\[ C = \text{Non-Scheduled Castes Literate Population} \]
\[ D = \text{Non-Scheduled Castes Total Population} \]

Kundu and Rao (1982) made a comparative study on the nature and patterns of inequalities in literacy rates between 1961 and 1971. They modified Sopher's formula of differential index and incorporated a new one, i.e.

\[ D_s = \log \left( \frac{X_2}{X_1} \right) + \log \left( \frac{Q-X_1}{Q-X_2} \right) \]

Where \( Q \geq 200 \)

\[ X_2 \geq X_1 \] and \( X_1 \) and \( X_2 \) are demographic indicators of alphas and non-alphas respectively.

So,

\[ D_s = \log \left( \frac{\text{Rural}}{\text{Urban}} \right) + \log \left( \frac{200-\text{Urban}}{200-\text{Rural}} \right) \]

Raza and Aggarwal (1986) looked into the regional dimension of inequality in the level of literacy in India. They also proposed an alternative formulation of Sopher's disparity index and the new index has been defined as:

\[ W = \log \left( \frac{L_2}{L_1} \right) + \log \left( \frac{(100+I_1)}{(100+I_2)} \right) \]

where \( L_1 \) and \( L_2 \) are the literacy rates and \( I_1 \) and \( I_2 \) are the corresponding illiteracy rates for the two elements between which disparity index is to be calculated.

Sagar (1990), in his study of rural-urban differentials in literacy, has modified D'Souza's formula and gave his own to calculate differentials, i.e.

\[ DI = 100\left(1-\frac{Y_i}{X_i}\right) \]
where,

\[ DI \] stands for the differential index.

\[ X_i \] stands for the ratio of the property of one item in the ith areal units.

\[ Y_i \] stands for the ratio of the property of the other item in the ith areal unit.

In order to measure the differentials or inequality of various demographic aspects among two relevant population groups, these statistical techniques have been adopted by different scholars. As we can see from the above methodological studies, most of these have been conducted to calculate literacy differentials mainly.

**SOURCES OF DATA**

For calculating rural-urban differentials of the chosen demographic aspects such as, size of household, sex-ratio, literacy and vital rates, secondary sources of data have been tapped. Census of India (1991) provides most of the data required for the study. But the analysis of these demographic factors is constrained by the nature of available data. Most of the data required for the study is at district level and due to non-availability of district level data on vital rates, they are examined for state-level. The data have been mainly obtained from the office of the Registrar General, New Delhi and the data for vital rates have been obtained from the Vital Statistics Division, Office of the Registrar General, India, New Delhi. Various occasional papers published by Census of India, Office of the Registrar General, New Delhi, were also consulted. The data were then processed to find the relevant ratios.
METHODOLOGY

Disparity or differentials can be absolute or relative. In an absolute sense, it may be calculated by simply subtracting the lesser values from the higher values. For instance, if literacy rate for urban population in a region is 60 per cent, for rural population it is 40 per cent, then absolute disparity will be equal to 20 per cent (i.e. 60-40=20). The relative disparity may be derived by working out the ratio between the literacy rates of both the regions i.e. U:R=60:40=3:2. Though these are two different views of disparity from different angles, but both suffer from a common vagary of grouping dissimilar areas into the same type. An area with urban literacy rate of 80 per cent and rural literacy rate of 60 per cent would have the same absolute disparity as an area with 50 per cent of urban literacy and 30 per cent of rural literacy rates.

Likewise, the relative disparity in an area with 80 per cent male and 40 per cent female literacy rates would be the same as in an area having 60 per cent urban literacy and 30 per cent rural literacy rates.

Thus, both absolute and relative measures have been used to measure disparities between various binomial elements. However, the major difficulty with both of these measures is that the disparity between alphas and non-alphas is not the same as between non-alphas and alphas. Hence, a more sophisticated technique for the measurement of disparity is required to overcome this difficulty. David E. Sopher (1974) has proposed an alternative measure known as Sopher's Disparity Index, that gives the same value in the two cases mentioned above. Sopher's disparity index was originally stated as follows:

\[ D_S = \log \left( \frac{X_2}{X_1} \right) + \log \left( \frac{100 - X_1}{100 - X_2} \right) \]
Where $X_2 \geq X_1$ and $X_1$ and $X_2$ are demographic indicators (such as literacy rates, sex-ratio, vital rates and size of household) of alphas and non-alphas respectively.

But this disparity index has also some limitations such as (i) for a given set of data, the disparity between alphas and non-alphas would be numerically the same but directionally opposite to that between non-alphas and alphas. This seriously restricts the analytic application of the index; (ii) It fails to distinguish between situations, each defined by two observations, when one of the two observations is zero or 100.

Therefore, in measuring the rural-urban differentials in size of household, vital rates, sex-ratio and literacy rates, an index that satisfies all the four axioms of additive and multiplicative monotonicity, redistribution and repetitive transfers (Kundu, 1986) has been employed. This is the Sopher's index which was further modified by Kundu and Rao (1982), i.e.

$$D_s = \log \left(\frac{X_2}{X_1}\right) + \log \left(\frac{200-X_1}{200-X_2}\right)$$

where $X_2 \geq X_1$ and $X_1$ and $X_2$ are various demographic aspects of alphas and non-alphas respectively.

It was found that most of the other techniques suffer from a limitation that the areas of high as well as low literacy may display similar differential index value if the two segments being differentiated are at the same level of literacy although they are simple and easy to comprehend.

Keeping in view the above mentioned disparity index, the first and foremost step in the analysis was the selection of binomial elements, in terms of which disparity was to be measured. The choice
or selection of these aspects was highly constrained by the availability of data. For example, data on vital rates for 1991 were available only on state level. The differential index for various demographic attributes for the different districts of India was computed on the basis of disparity index given by Kundu and Rao (1982). Therefore, since spatial concept occupies a central position in every geographic inquiry, map is an important tool. On calculating differential index for various demographic indicators, the districts of India were classified into various categories and represented cartographically so as to present a regional perspective, showing spatial patterns of rural-urban differentials in size of the household, vital rates, sex ratio and literacy. The Census Map of India (1991) showing district boundaries has been adopted as the base map (Map 1.1).

Wherever necessary, correlations have been calculated to determine the relationship between the dependent as well as the independent demographic and socio-economic variables. The coefficients of variability have also been computed to seek the spatial disparity of sex ratio and vital ratios.

ORGANISATION OF MATERIAL

The present study has been organised into five main chapters followed by a summary of conclusions.

The first chapter is introductory in nature and deals with the problem under study, review of literature, methodology and data sources.

The second chapter explains the rural-urban differential trends and the spatial patterns of these differentials in size of the household in India at state as well as district level.
In the third chapter the trends and spatial patterns of rural-urban differentials in vital rates have been discussed only on state level because of the non-availability of district level data on vital rates.

The fourth chapter also deals with the trends and spatial patterns of rural-urban differentials in sex-ratio both at state and district level.

The fifth chapter presents a view of the trends and spatial patterns at state and district level for the rural-urban differentials in literacy.

The last chapter presents a summary of conclusions. It is followed by References and Bibliography.