Chapter - II

METHODOLOGY

(i) Focus of the study.
(ii) Hypotheses and Research Design.
(iii) Sources of Data and Data Collection.
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METHODOLOGY

(1) **Focus of Study:**

Broadly, there are two types of studies: (i) studies based on first hand collection of data involving field work, and (ii) analyses of secondary data, specially census and NSS data. Most of the urban studies in India belong to the first category. This to some extent is inevitable on account of the paucity of data on cities but the fact remains that even when massive data were made available as in 1961 census, very little efforts have been made to utilize this data fully and effectively. Even in U.S.A., Hamilton points out 'it is to be regretted that more use has not been made of the extensive migration data of the 1950 United States Census. Possibly too few social scientists are aware of the research potentials of these data, and even less aware of the methods available for blasting scientific truth out of them.'

The data on cities over the world, though uneven in
quality and inadequate on many counts, are nonetheless increasing. New materials are constantly being amassed by social scientists. Unfortunately, these data tend to be ignored by Indian sociologists. Considerable data are accumulating on the familial, economic, educational governmental and other structures. As new societies enter the industrial-urban orbit, the data on urban centres can be expected to multiply still more rapidly. As Reiss has observed, sociologists have been more interested in studying and theorising about segments of urban social and ecological structure than in dealing with the totality, and they have tended to use the city as a laboratory for testing theories and hypotheses. With increased specialisation these trends are likely to persist. Nevertheless, one that views the urbanisation process or the urban community in its totality has much to offer.

A number of sociologists have examined the impact of the city upon human ecology and social structure. Celebrated German sociologist Max Weber and his colleagues George Simmel and Spengler in Germany had initiated the study of city. In America, Park and Burgess and their colleagues and students, most wirth and Redfield, have been instrumental in developing and popularising the theoretical
perspectives. They draw heavily on the writings of Simmel, Tonnies, Durkheim and Max Weber. The 'Urbanisation school' has addressed itself, in its own fashion, to an issue of central concern to most leading sociologists - namely, "what are the patterns and processes involved in the transition from a pre-industrial, or agrarian, or feudal way of life to an industrial, or urban, or capitalist order"? Within modern urban sociology, Wirth's "Urbanisation as a Way of Life" is perhaps the most widely cited theoretical orientation. He takes the city -- characterised by size, density, and heterogeneity -- as the key determinants of many kinds of social actions. Redfield, too, in his 'Folk Culture of Yucatan' utilizes the city as a key variable; however, he considers heterogeneity and lack of isolation as the chief characteristics of city. The Wirth-Redfield perspective, though sharply criticized, continues to claim some staunch supporters among students of urban sociology. A recent research by Smith on pre-industrial Tokyo, lends support to Wirth's position. But very interestingly, many of the ideas of Wirth and Redfield are today being analysed and researched not by urban sociologists but by those sociologists who speak in terms of "loss of identity", "alienation" or "anomie".
Considered against western experience where rural urban differences have been eliminated largely by introducing a high degree of mobility in the population, India still has vast regions that must be termed rural and traditional not only because the inhabitants are mostly subsistence farmers, but they are also isolated from exposure to modernization. But despite its essentially rural orientation, India is changing and the impact of urbanization is being felt frequently even at great distance from the cities. Mao has identified four different situations in which urbanization exerts an influence upon rural areas. The most obvious urban impact occurs in the case of rural villages in the vicinity of an expanding city. Such villages, generally known as satellite or hinterland, are often absorbed as the city grows with village land sold off for urban development. The agricultural village itself is incorporated into the city as an outlying neighbourhood nucleus but not a suburb in the western sense.

A second urban impact occurs in those villages where some industrial unit is set up. In such instances
an influx of workers occurs, demand for housing increases sharply, the social life of the villages ruptured, markets are reordered, prices and living costs rise sharply and the fundamental stability of the villages is upset. Bhilai is an example of this category. Under such cases urbanisation is thrust upon the villages.

The third situation in which urban influences take place in rural areas, is much more widespread. In most of U.P. villages a sizeable number of persons, mostly male, have sought employment in cities often at great distances. Some even migrated to overseas but seldom relinquishing their village ties. In many cases the family remains behind in the village supported by remittances. Village migrants have built fashionable houses in their native villages; invest money in land and industry and have donated liberally to the establishment of educational institutions and trusts. Whether the emigrants reside in India or foreign countries, the feedback effect of urbanisation remains significant in these villages. In this situation urban impact is felt in the villages even though they are not physically situated near a city or town.

Lastly, villages situated at a shorter distance
from cities and properly connected by the means of transport, are affected in two ways. One, by the inflow of rural commuters to cities who work during day hours at urban centres in industrial units and establishments and return back to their native villages daily in the evenings. These commuters serve as the host to carry the urban culture to rural population. It has a deep imprint on the family structure in village society.

'Urbanism' moves from its boundaries to traditional villages. And the second, though less frequent in our case, by the outflow of urban dwellers who flee the congestion of city for the calm, quite and low cost of villages. Those communities most affected by this form of urbanization are those which lie close to cities on bus and rail routes.

The present thesis purposes to examine and analyse certain aspects emerging out of the increasing urbanization in the state of Uttar Pradesh during the period of a decade from 1961 to 1971. The time coverage may appear inadequate while looking to arrive at any conclusion on the trends of urbanisation. As a matter of fact certain studies have been conducted which tried to analyse the census data on urbanisation in Uttar
Pradesh up to 1961. The idea behind the present attempt was to extend the analysis up to 1971, the next point is the availability of published data; when the problem had been thought to be attempted. Now the 1981 census is also done, but we are yet looking for the data in final and published form. A very late arrival of such an important document many times poses the problem of quality and timeliness of the research.

The problems emerging out of rapid development of urbanisation may be explained in two forms. One, as the rural population expands, the demands and pressures on rural resources also grow. Rural economic opportunities usually do not keep pace with population growth and migration to urban areas impelled by the "pull" of urban economic and cultural opportunities and the "push" of rural overpopulation, land shortage, and economic stagnation, is the usual response. The influx of rural migrants to cities and towns has resulted in the enlargement of urban population. These migrants with their specific socio-economic and cultural background create as well face multiplicity of problems in urban settings. The pattern of migration and the structure of
migrant population have been analysed in following chapters of this work. Second, with the increasing 'urbanisation' the process of social change become fast operating. Kingsley Davis remarks, "Urbanisation represents a revolutionary change in the whole pattern of social life. Itself a product of basic economy and technological development, it tends to turn, once it comes into being, to affect every aspect of existence."8

One of the far reaching consequences of urbanisation has been on the structure of the family. Traditionally the family in India has been oriented towards agricultural occupations which encourage the joint or extended family structure. Urban migration from rural areas cuts to the very basis of joint family system by upsetting its economic stability. Although the cultural pull of a tradition of joint families is still strong, the hold is no longer absolute.

This aspect of social change in the area of family living has also been attempted to analyse under the head 'Social aspects of Urbanisation'. Aileen Ross has taken this problem in urban setting. She observes, "

"Economic hardship even in the more favoured conditions of city, the augmented level of
expectations produced within more sophisticated atmosphere of urban environment, and the increasingly independent younger, better educated brides, all are contributing currently towards a tendency to elevate the nuclear family as the ideal family organization in the city."

The present work has also given focus on education and literacy of urban population of Uttar Pradesh. In course of analysis attempt has also been made to discuss the income-expenditure pattern. Because much of the mutual interdependence of family members is challenged in the urban environment. Cooperative labour goes on loosing importance. Cooperative labour is replaced by individual effort which is bound sooner or later to bring comparison in the earning capacity of individual family members.

As the present study is based on secondary data, Caste -- an important aspect of social life in India -- could not be analysed. However, the urban population is dealt in terms of occupation. A detailed description is to follow in the chapters ahead.

Of the various characteristics of urbanisation, from methodological point of view, the one most removed
from an average of individual cities and at the same time perhaps most important is the degree of urbanization, which is defined as the per cent of the total population of a country who reside in urban units (i.e., cities, urban areas, or metropolitan areas) above a specific minimum size. This variable is independent of the size of urban population, the number of urban units and their average size.

Although the degree of urbanization is not a complex mathematical variable, its treatment poses some technical problems. This becomes apparent when one realizes that the percent of total population who reside in urban units is relative to the definitions employed and the methods utilized to delimitation of urban units. "It is observed that measures of the degree of urbanization in different countries are not comparable unless based on the same types of urban units and similar methods of delimitations."\(^{10}\)

In the present study we have taken the 1971 census definition of 'Urban' as the standard one and the rest of the measurements follow the same definition to avoid any confusion.
Census Definition of Urban

The village or town is recognised as the basic area of habitation. In all censuses throughout the world this dichotomy of rural and urban areas is recognised and data are generally presented for rural and urban areas separately. But the difference between urban and rural population is yet not applicable to a single definition which would be applicable to all countries.

In India the smallest area of habitation is village. It generally follows the limits of revenue village that is recognised by district administration. The revenue village is not necessarily a single agglomeration of habitations. It may include one or more hamlets. But the revenue village has a definite surveyed boundary and each village is a separate administrative boundary with a separate village accounts.

It is in defining the urban areas that the problems arise. The definition adopted for an urban area for 1971 census which followed 1961 pattern was as follows:

(a) All places with a municipality, corporation, cantonment or notified town area;
(b) All other places which satisfied the following criteria:

1) a minimum population of 5,000.

ii) at least 75% of the male working population being non-agriculture.

iii) a density of population of at least 400 per km², i.e., 1,000 per sq. mile.

The directors were however, given some direction in respect of some marginal cases in consultation with state Government to include some places that had other district urban characteristics and exclude undeserving cases.

**Standard Urban Areas:**

A new concept that had been developed for 1971 census for the tabulation of certain urban data was the standard urban area (SUA). The essentials of a SUA are:

1) it should have a core town of a minimum population size of 50,000;

ii) the contiguous area made up of other urban as well as rural administrative units should have close mutual socio-economic links with the core town; and

iii) the probabilities are that this entire area will get fully urbanised in a period of
two or three decades. This replaced the 1961 concept of 'town group'.

Urban Agglomerations:

In several areas, fairly large railway colonies, university campuses, port areas and military camps have come up around a core city. Though these may be outside the statutory limits of town they fall within the revenue boundary of the place for which the town itself is known. Such areas are treated included with the town and are being called 'Urban Agglomeration' (UA) at 1971 census.

Although of great theoretical and practical importance, the percent of total population residing in cities is only one characteristic of urbanisation in a country or state. Some of the others that require recognition are:

(1) the number of people in the urban population,

(2) the total number of urban units,

(3) the number of people residing in urban units of specified size, e.g., one lac and above or cities between 50,000 and 1,00,000 inhabitants, and
(4) the number of urban units in a specified size range.

Configurations of these and other characteristics may be said to form an urban structure.

For operational purposes such classifications are, quite useful and practical. But while discussing the problem of urbanisation our limits are more penetrating and deep. A student of urban sociology is not only interested in examining the nature and type of territorial extension of a city or town. It is a case of horizontal urbanisation. An other type of change in the social configuration of a town occurs due to vertical urbanisation. Multistorey buildings, apartments, and 'towers' change not only the physical structure of the city rather these introduce multi-dimensional changes in the social organisation and socio-cultural life of the city. This is rather, of more interest to a student of the society.

(11) Hypotheses and Research Design:

"There is no genuine progress in scientific insight through the Baconian method of accumulating empirical facts without hypothesis or anticipation of nature."
Any scientific investigation of fact is not possible to be researched in the absence of a hypothesis. A hypothesis may be in the form of a proposition, condition or principle which is assumed in order to draw out its logical consequences and thereby to test its accord with facts which may be known or may be determined. J.N. Kerlinger in 'Foundations of Behavioural Research' maintains that a hypothesis is a conjectural statement, of the relations between two or more variables. It is in declarative form and related to variable to variables. As a statement it may be proved or disproved but in both the cases it helps in proceeding further. It is with clear hypothesis that the scope of the study is limited and relevant data to be collected and organised in a systematic way.

As far as the classification of hypothesis is concerned, they may be several types of hypotheses. On the basis of level of abstraction it may be divided into three categories:

i) Existence of Empirical Uniformities,

ii) Complex Ideal type Hypotheses,

iii) Relation of Analytic Variables.
In the formulation of hypotheses to conduct the present study stress has been given on the first category mentioned above. Such hypotheses, by and large, represent scientific examination of common sense propositions. There may be persons disagreeing and perhaps not accepting such common sense propositions as hypotheses. For them it may be a simple statement of facts and the whole study is oriented towards affirmation of these facts. But these may be taken as just simple objections. What is wrong if something is known to all. Science aims at specificity and precision on logical basis. So to put common sense ideas into precisely defined concepts and test the proposition is in itself an important task.

Keeping these considerations in mind working hypotheses have been proposed to conduct the present research aiming at the investigation of major trends emerging in the urbanization process of Uttar Pradesh. Gibbs and Martin in their study, "Urbanisation, Technology and the division of Labour", set forth the following propositions: 12

IA  The degree of urbanisation in a society varies directly with the division of labour;

Id  The division of labour in a society varies
directly with the dispersion of objects of consumption.

IIA The degree of urbanisation in a society varies directly with technological development.

IIB Technological development in a society varies directly with the dispersion of objects of consumption.

Another proposition tested in an earlier study - namely, "the degree of urbanisation in a society varies directly with the dispersion of objects of consumption" can then be considered as a theorem derived from the preceding postulate. Gibbs and Martin, like Duncan and Schnore and other Chicago Ecologists, have used their so called ecological approach. But later they felt inconvenience, specially in the matter of values. Gibbs and Martin write: 

"It may even be true that socio-cultural values and ideologies influence urbanisation. But we do not reject these phenomena as possible explanation of the particular relationships observed in this study. This would be the case even if a spatial association between urbanisation and certain types of values could be demonstrated. It is entirely possible that as urbanisation occurs certain values will come to prevail."
This was ecological (Chicago) approach to urbanisation. Like wise there are many other theoretical orientations in urban sociology. Important among these are the economic school dominated by Russian and Marxist sociologists, environmental school of Lewis Mumford, the technological school led by Hawley and William Ogburn, the value-orientation school of Max Weber's tradition and the social power school advocated by Weisbord. Form.

The interrelationship among the variables employed by different schools demands careful attention. Thus the expansion of technology particularly industrialisation not only gives impetus to urbanisation but is itself spurred by the growth of cities. Also, definite ties exist between the technological advancement and the dominant ideology and power-structure. Again, a society's value orientation or ideology determines to a marked degree the manner in which the social power is applied.

The logical query is: What next? Because sociologists still have so much to learn about comparative analysis, it is likely that their energies in the years to come will be devoted primarily to formulating more adequate propositions. Keeping all these theoretical
and operational aspects of urbanisation, the present work proposes to test the following set of hypotheses:

IA There has been an increase in the degree of urbanisation in the state of Uttar Pradesh from 1961 to 1971.

IB Rate of urban growth has been less than the net population growth of the state during the period 1961-1971.

IIA Increase in the degree of urbanisation is more due to migration than due to growth of population in the towns and cities.

IIB Rate of migration from rural to urban areas has increased from 1961 to 1971.

IIC Migration is largely towards industrial centres and majority of the migrants are the youths.

IIIA Occupational diversification in urban Uttar Pradesh has increased from 1961 to 1971.

IIIB Ratio of working females in the total working population has gone up.

IVA Small urban areas are developing due to the movement of population from the surrounding rural areas in search of market.

IVB There is a inverse relationship between density of population and the literacy rate of the population.
V Rank-size rule is applicable as the pattern of variation according to size of urban centres in Uttar Pradesh.

On consideration in this regard pertains to the relations of the size of one or more urban units to that of the others or in more general terms, patterns in variations according to size. One such pattern is described in terms of rank-size rule according to which the largest city has twice the population of second largest, three times the population of the third largest, and so on. If such a pattern exists it is possible to deduce the number of residents in a city from knowledge of the rank of its population size and the number of residents in the largest city. Thus, if the largest city has ten lac inhabitants, then the city that ranks fifth in size will have two lac population.

In the present study the Rank-size Rule would be put to test. Hypothetically we assume that the patterns in variations according to size of cities in Uttar Pradesh confirm this rule.
Research Design and Collection of Data

A research design is the arrangement for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. According to F.N. Kerlinger, "it is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control variance. It may incorporate the following purposes:

i) To get familiarity with the phenomenon or to get new insight to formulate a more precise research problem.

ii) To portray accurately the characteristics of a particular individual, situation or group.

iii) To determine the frequency with which something occurs.

iv) To test a hypothesis of a causal relationship between variables.

Looking at the nature of the problem under consideration a descriptive analytical research design has been suggested. As the descriptive studies portray the characteristics of a particular group, communities or
situation so in the present study a focus is given on the urban population residing within a legally defined territory. It is analytical in approach as we move from macro to micro level for generalisation. It is a 'Time Dimension Enquiry' because the variable of family size, density, literacy and migration have been put to analysis on the basis of data collected at two points in time in the same universe. Census data of 1961 and 1971 for Uttar Pradesh pertaining to above mentioned variables have been collected. It is therefore, a trend study. It is obvious that in such a time-dimension-research, there is no way of observing internal changes.

Success or failure of any research very much depends on the availability of data and the degree of the reliability of data. Present one is a secondary data based research, therefore, at the original point their reliability could not be assessed. However, it is a well planned and established exercise formulated by experienced and expert people and conducted by trained investigators. Therefore, the chances of bias are the minimum and the reliability the maximum. But even in case of secondary data the investigator should be clear that he should not take every thing in secondary sense of data
as for granted. It is linked with the hypothesis of the research problem and definitions or concepts being used in the research design. It is hypothesis which will decide as to what data is relevant and what is not relevant.

As it has already been mentioned, the present study is based on secondary sources of data. These secondary data as we know may be in the form of personal documents or public documents. Life histories, letters and diaries are some of the examples of personal documents. On the other hand, parliamentary debates, recorded speeches, census reports and annual reports etc. are the examples of public documents. In India we have a huge amount of published data. Most of these are generated by central and state governments. Data pertaining to urban studies in India are generally available from the following sources:

1. Census reports and monographs based on census data. Important among these is the Town Directory.
2. National Sample Surveys;
(4) Demographic Surveys.
(5) Ad hoc Committee reports.
(6) Ph.D. theses
(7) Findings and reports of Seminars and Conferences.
(8) Long term research on urbanisation.
(9) Other surveys on urban areas.
(10) Organisations connected with urban research in India.

Census in India:

After every ten years in India census is conducted which gives information covering all the social, economic and cultural aspects of Indian population such as total population, increase or decrease in population, sex ratio, educational standard. Family and income, occupation, language, migration, etc. From 1961 Census special stress is given on tabulation of data on cities specially cities with population of 100,000 or more. Special reports were also prepared for cities with population of one million and above. From 1961, separate chapter on urban population was added in the general reports for different states. Prof. Ashok Mitra, the 1961 census Commissioner, has discussed at length the general features of internal
migration, functional classification of towns and the urban industrial outlook. It was this specific stress of census on urban population which started from 1961 census. This was one of the reasons for selection of the period from 1961 to 1971 to trace the trend of urban growth in Uttar Pradesh.

Besides census, important informations are made available on cities by socio-economic surveys, National Sample Surveys and techno-economic survey of Uttar Pradesh. Some valuable informations were taken with the help of certain urban researches conducted particularly by Prof. Asok Mitra (Delhi), Prof. Ashish Bose (Delhi), Prof. M.S.A. Rao (Delhi), Dr. (Mrs.) S. Saxena (Agra), and Dr. V.K. Pant (Gorakhpur). Collection and recording of data were mostly conducted at Maulana Azad Library, (Aligarh Muslim University, Aligarh), Library of Indian Institute of Public Administration (New Delhi), Ratan Tata Library (Delhi), Indian Institute of Town Planning (New Delhi) and Indian Institute of Technology (Kanpur).
Problems of Data and Data Collection

Now we shall briefly comment on the data on growth of urban population as a whole as well as on the growth of individual cities and towns. Looking at the voluminous census report one may have the impression that everything is very clear and definite and therefore any information can be collected without any confusion. But the case is not so simple. There are certain hurdles with census data also. Such as:

(1) The new definition of urban as adopted in 1961 census and subsequently accepted in 1971 census calls for certain adjustments. The main census table (Table A-IV) gives the unadjusted growth rates.

(2) The concept of 'town group' sometimes renders difficulty. Everytime the growth rate is calculated for a city or town, it is necessary to check if the data are for 'Census town' or for 'town groups'.

(3) The Indian census has not so far collected data on the place of work.

In view of the increased commutation to urban areas, especially to big cities, it has become increasingly essential
to have data on this aspect to understand better the problem of city-ward migration.

Besides these theoretical issues, there have been certain practical problems in the collection of data. Most important of these is the late availability of census data in published form. A complete published census is usually made available after four or five years. In most of the cases our libraries do not pay much importance to have an up-to-date information about census data. Census reports are perhaps the most neglected material in libraries. These are hardly arranged systematically and it usually takes a lot of time to reach to proper volumes for the collection of data. In case the library staff is helpful and cooperating, the problem is eased to certain extent.
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