CHAPTER-I
INTRODUCTION

1.1 Introduction

No simple generalization about the total effects of out-migration on the place of origin is possible. Men always seek permanent or temporary dwelling at a place where geographical factors are more or less congenial for securing livelihood, security and final adaptation. Out-migration is not attributed to only economic factors but to the entire physico-cultural setting of the place. This way, there is enormous variation in the volume of out-migration between countries and between regions within a country. However, out-migration is generally viewed from macro economic perspectives, leaving little room for the specific aspects of the rural sector and dealing mainly with the incidence of out-migration on the non-agricultural urban sector. This urban bias is paradoxical when it is found that most migrants come from the rural areas and also that a great deal of out-migration from the rural areas is directed towards other rural areas.

There are three basic components of population change, viz., fertility, mortality and migration. Mortality and fertility are mainly biological variables in the sense that they operate within the biological framework, though social, cultural, economic and political factors do exercise some influence on them. Migration, on the other hand, is purely a socio-economic phenomenon, which is the result of a complex mechanism involving social, psychological, economic, political, institutional and other determinants. In almost all the demographic analysis, though top priority is given to the study of fertility and mortality, there are some indications in recent years of a larger appreciation of the need to play more attention to migration. As stated by Bogue (1969)  

"If the problem of human fertility were no so critical at the present time, it is almost certain that the human migration and the plight of migrants (especially in the developing countries) would be listed as a top priority problem for research and action." In spite of the complexity of population movement and the need to explore all its dimensions, comprehensive evaluation of population movement requires specialized surveys, which
either focus exclusively on movement or in which attention to movement is a major component.

Human migration is an important subject for social scientists interested in population dynamics. The great diversity of the movements from place to place, which have come to characterize human society, has had a great effect on the geography of the contemporary world. Geographical analysis is an essential tool for understanding the causes and characteristics of migration at all scales, from short distance internal migration to emigration of overseas. There are several reasons why geographers devote attention to the study of migration. The territorial redistribution of population is an attractive subject for a spatially oriented discipline. Dynamic aspects have attracted more attention and at the present time interest in spatial processes and spatial interaction is of more concern in modern geography than a concern with spatial pattern.

1.2 Statement of the Problem

In many developing countries, unbalanced regional development and unbalanced investment on men and materials lead to out migration for economic reasons from rural areas and underdeveloped regions. The lack of industrial development in rural areas, poor infrastructure, limited market place, rural poverty, low agricultural income & productivity and under-employment induce the rural population to out migrate to other areas which offer better employment opportunities and wages. Moreover, the pressure of population resulting in the higher land man ratio has been hypothesized as an important cause in increasing rural out migration. People respond to their perception of market forces and changing economic opportunities, thereby, helping to maintain a balance between geographical distribution of population and the available resources. As population grows, unless the rural non crop husbandry sector or the cottage or small scale industries expand so as to absorb the surplus, increasing number of people must move to other places of destination to find gainful employment. In a country like India where disparities in respect of economic development exist not only between the states but also within the districts and there is not enough decentralization of economic opportunities, the study of rural male out migration has its own importance. The study of human mobility behaviour is important as the need of the time when the need of integrated rural development has been recognized and consequently special attention is paid to several

2
aspects of social and economic development including the establishment of panchayat raj, growth centres and small-scale industries in rural areas.

Migration is a major factor in economic development and manpower planning. It has acquired special significance in the context of commercialization of agriculture. With greater access to new technology, the large landowners have become richer, while the small farmers who find new technology expensive and too risky are left behind. Because the subsequent increase in productivity and output brings down price, the small farmers, using traditional forms of production and receiving lower price, experience decline in income. These factors have led to rural out-migration of people. The establishment of schools in rural areas has also stimulated out-migration by providing education and awareness of other opportunities to rural youths especially those belonging to the middle class. Some out-migrate to pursue their further education while others out-migrate because they get dissatisfied with the prospect of rural life. Thus, both the rich and the poor are almost equally prone to out-migration from rural areas. The rich out-migrate out of desire for better and greater comforts of life, while the poor out-migrate out of economic compulsion to eke out their living.

Bihar is a large state with complex population structure. So regional studies of the characteristics, patterns, determinants and effects of the out-migrants have their own importance. But, very few studies on the characteristics, patterns, determinants and effects of rural male out-migration of the Biharis have been carried out. Till recently, not a single study of this type has been carried out over the rural areas of Bhagalpur district which has its own typical problems. The district of Bhagalpur is thickly populated with high density in the rural areas and has lower agricultural, infrastructural and socio-economic development through out the state of Bihar. A study of the nature of population movement in respect of this district, therefore, needs special attention. Generally the rural folk of the district are poor and illiterate. A vast majority of them are dependent on agriculture for their livelihood. Therefore, a study of rural male out-migration of Bihar in general and Bhagalpur district in particular is highly desirable. That is why, this study is an attempt to deal with the magnitude, characteristics, patterns, determinants and the effects of male out-migration on the place of origin in rural areas of Bhagalpur district where from, a good majority of males have out-migrated to various developed rural areas
and urban towns for seeking gainful employment, leaving behind their wives, children, parents and siblings in the villages.

1.3 Objectives

It is generally assumed by the urban planners that income and skills brought by the rural male out-migrants from the places of destination bring about changes in the pre-established way of life in the villages and raise the economic status of the out-migrant's families, which in turn, lead to a rise in their living standards and aspirations. Nevertheless, we do not have sufficient grounds to understand as to whether the outflow of rural males is beneficial to the rural economy as a whole or it is just depleting the villages of their valuable human capital. The objective of the study is to analyze the process of rural male out-migration from several angles, so that it may help in understanding the problems of a backward economy as in Bihar in general and Bhagalpur district in particular. Moreover, the study aims at examining the quantum, demographic socio-economic aspects etc of the rural male out-migration referring especially to the trends, patterns and determinants of rural male out-migration and the effects of rural male out-migration on the villages of Bhagalpur district. The specific objectives of the study are as follows:

1. To find out the spatial patterns, magnitudes and determinants of out-migration from rural areas of the district.
2. To study the demographic and socio-economic characteristics of rural male out-migrants.
3. To evaluate the impact of male out-migration on rural areas of the district.
4. To ascertain the factors which affect the variance with the above mentioned objectives.

1.4 Hypotheses

1. The volume of rural male out-migration is expected to be negatively related with distance.
2. The higher the rural male population in the age group of 15-35, the higher the rural male out-migration.
3. The higher the share of the landless labourers and small farmers, the higher the share of rural male out-migration.
4. The higher the proportion of upper caste population, the higher the rural male out-migration.
5. The low educated males will be greater out-migrants than illiterate males; and professional and highly qualified males will be the most mobile section of population.

1.5 Literature Survey

1.5.i Theories of Migration

Theories have been gaining importance in the recent years and are finding wider application in social and natural sciences. A theory is a symbolic and simplified representation of reality, which aids in the patterning of the observed behaviour. Kaplan (1964)* views theory as a system of laws. But the laws are altered by being brought into systematic connection with one another. The theory is not the aggregate of new laws, but their connectedness, as a bridge consists of girders only in that the girders are joined together in a particular way. On the other hand, Galtung (1967)* defines theory as “a set of hypotheses structured by the relation of implication or deducibility. In social sciences, no controlled experiments can be used to study the real solutions. Population geography is no exception in this regard. However, there is no unique and unified theory in population geography, which satisfies all types of behaviours. Theories are broadly classified into “deterministic” and “stochastic”. Deterministic theories assume a functional relation between their input and output variables whereas in stochastic theories, the input variables are treated as probabilistic distributions and the relation between the input and output variables are left to probability. Thus it seems that the data needs may be different for each type of theories. Generally deterministic theories can derive data from secondary sources of data, whereas stochastic theories usually depend on primary as well as on secondary data (Spear, 1974)*

The process of theorization of migration began in the 19th century. It has been discussed by sociologists, geographers and economists, who have respectively emphasized the social and cultural, the distance and economic factors as the causes of migration. The main concern of sociologists has been to examine factors influencing the individual and household decision for migration. They have discussed demographic, social, physiological, economic and attitudinal factors to explain the migration flows. Economists have focussed their attention on the causes and consequences of migration. They have been discussing the role of wages, income, levels of employment and unemployment in influencing migration flows. Geographers are largely concerned with
movement of people in space and territorial redistribution of population. Dynamic aspects have attracted more attention and at the present time interest in spatial processes and spatial interaction is of more concern in the modern geography than a concern with the spatial patterns. Their focus is not only on the spatial pattern, direction of movement, demographic aspect and distribution of population but also on the people who migrate, the reasons for their migration and the consequences of migration.

1.5.i.a: Ravenstein's Laws of Migration: - The first name worth mentioning in theorization of migration is of Ravestein. On the basis of internal migration data, at first, in Britain and later, in twenty more other countries, he postulated his laws of migration in his two classic papers, which have stood the test of time and have remained the starting point for most of the contemporary migration theories (Ravenstein, 1885*5 and 1889*6). He, thus, reacted to the earlier studies of Farr (1876)*7 who had remarked that migration appeared to go without any definite law. He made out five explicit and two implicit statements concerning patterns, migratory streams, migration motives, characteristics of migrants and distance of migration. His laws of migration are as follows:

1. Migration and distance: The rate of migration between two points will be inversely related to the distance between these two points. Long distance migrants have a preference for large centres of commerce and industry.

2. Migration by stages: The inhabitants tend to move firstly towards nearby towns and then migrate towards the most rapidly growing cities.


4. Rural urban differences in propensities to migrate: The natives of towns are less migratory than those of the rural parts of the country.

5. Technology, communication and migration: - The magnitude of migration increases with the advancement of technology. It further accelerates with the growth in means of transport and communication and expansion of trade and industry.

6. Predominance of females among short distance: Among the short distance, female migrants appear to dominate. Moreover females in general are more migratory than males.
7. Motives behind migration: The economic motive is always predominant factor in influencing the decision to migrate.

On the basis of the above description, he concluded that people move from an area of low opportunity to the areas of high opportunity. However some of his laws like female predominance in short distance, distance and migration, migration by stages etc. have been challenged by various scholars.

1.5.i.b: Lee’s Conceptual Framework for Migration Analysis: On the basis of Ravenstein’s laws of migration, Everett S. Lee (1966 and 1969) postulated a general schematic framework for analyzing the volume of migration, the development of streams and counter streams and the characteristics of migrants. He elucidated the factors associated with the decision to migrate and the process of migration into four categories:
(a) Factors associated with the area of origin
(b) Factors associated with the area of destination
(c) Intervening obstacles and
(d) Personal factors.

This has been shown in diagram I.1. Further, he divided the forces exerting influence on migrant’s perception into ‘pluses’, ‘minuses’ and ‘zeros’. Pluses pull individual towards them, whereas minuses tend to drive them away. Further, zeroes balance both the competing attractive and repellent forces and towards which people are therefore essentially indifferent. The concept of push and pull factors are central to his analysis. On the basis of above factors, he has conceptualized into the following twenty hypothetical statements.

A. Volume of migration
1. The volume of migration within a given territory varies with the degree of diversity in the area included in that territory.
2. The volume of migration varies with the diversity of people.
3. The volume of migration is related to the difficulty of surmounting the intervening obstacles.
4. Unless severe checks are imposed, both the volume and the rate of migration tend to increase with time.
5. The volume of migration varies with fluctuations in the economy.
6. The volume and rate of migration vary with the state of progress in a country or in an area.

B. Stream and counter-stream
7. Migration tends to take place largely within well defined streams.
8. For every major migration stream, a counter stream also develops.
9. The efficiency of the stream is high if the major factors in the development of a migration stream were minus factors at origin. In other words, origin push factors are relatively more important than destination pull factors.
10. The efficiency of stream and counter stream tends to be low if origin and destination are similar.
11. The efficiency of migration stream will be high if the intervening obstacles are great.
12. The efficiency of a migration stream varies with the economic conditions being high in prosperous times and low in times of depression.

Figure 1.1: Origin and Destination Factors and Intervening Obstacles in Migration

C. Characteristics of Migrants
13. Migration is selective.
14. Migration responding primarily to plus factors at destination tends to be positively selected.
15. Migrants responding primarily to minus factors at the origin tend to be negatively selected; or where the minus factors are overwhelming to entire population groups, they may not be selected at all.
16. The degree of positive selection increases with the difficulty of the intervening obstacles.
17. Taking all migrants together, selection tends to be bi-model.

18. The heightened propensity to migrate at certain stages in the life cycle is important in the selection of migrants.

19. The characteristics of the migrants tend to be intermediate between the characteristics of the population at origin and the population at destination.

20. Income levels are significant variables in migration.

Lee’s theory of migration has been criticized on the ground of its high degree of generality and the interdependence of many of its hypotheses. It also does not clarify which plus factors and which minus factors at both the origin and the destination are quantitatively the most important to different groups and classes of people. In short, by not specifying the interrelationships between the dependent and the independent variables within the context of a rigorous theoretical framework, Lee’s theory of migration offers little practical policy guidance for decision makers in the developing nations.

II.5.i.c: Lewis-Fei-Ranis Theory of Development: - The first comprehensive theory of development related to the process of rural-urban labour transfer was the one developed by W.A.Lewis (1954)*10 and later extended by John Fei and Gustav Ranis (1961)*11. The combined structure is known as L.F.R model. It is based on a concept of dual economy, comprising a subsistence agricultural sector (rural) characterized of unemployment and under-employment and a modern industrial sector (urban) characterized by full employment where capitalists reinvest the full amount of their profit. This model considers migration as an equilibrating mechanism, which through transfer of labour from the traditional labour surplus sector to the modern labour deficit sector, eventually brings about wage equality in the two sectors. The marginal productivity of labour in the subsistence sector is zero or very low and the wages paid to the workers are equal to their cost of subsistence, so wage rates exceed marginal products. Contrary to this, wage rates in the modern urban sector are much higher mainly due to the high productivity oriented activities. Migration of workers from the rural areas to the urban areas is caused by differences in those wage rates. This in turn increases industrial production and profits as well as possibilities of reinvestment, which in turn increases the demand for labour from the subsistence sector. This process will continue as long as surplus labour exists in rural areas (Oberai and Bilsborrow)*12.
In spite of the simplicity of theory, several scholars have found it unsatisfactory from the viewpoint of analyzing the causes and consequences of migration in developing countries. In the first place, migration is not induced solely by unemployment or underemployment in the rural areas although there is no doubt that this is an important factor in the decision to migrate. Secondly, the assumption of near zero marginal productivity in agriculture has not been confirmed empirically. Thirdly, the rate of growth of modern industrial sector has been lately too low in many developing countries to permit such development as formulated by L.F.R (Oberai and Manmohan Singh, 1983)*13. The model has failed to explain the phenomenon of coexistence of surplus labourers in the urban sector with substantial and steady movement of rural workforce to urban areas. The experiences of developing countries like India reveal that the modern sector, due to its relatively slow pace of growth and emphasis on highly capital intensive techniques, can not absorb the natural growth of the urban workforce. Thus rural-urban migration in these countries neither results in rapid economic growth in the urban areas nor brings about fundamental transformation in the rural areas (Smit, 1998) *14.

1.5.i.d: Todaro’s Theory of Rural-Urban Migration: - Todaro (1969)*15 has tried to develop a theory of migration in the context of this apparently contradictory situations. Starting from the assumption that migration is primarily an economic phenomenon, the Todaro theory establishes the rationality of such apparently contradictory situation by postulating that migration occurs in response to rural-urban difference in expected rather than actual earnings. Migrants consider the labour market opportunities available in the rural and urban sector and choose the one, which maximizes their expected gains from migration, calculated from the rural-urban real income differential and the probability of a new migrant obtaining an urban job, the later being inversely related to the urban unemployment rate. They compare their expected income, for a given time horizon in the urban sector with prevailing average rural income and migrate, if the former exceeds the later.

\[ \frac{M}{L_u} = f\left(\frac{V_u - V_r}{V_r}\right) \]
Where, $M$ - net number of rural-urban migrants.

$L_u$ - size of the urban labour force.

$V_u$ - discounted present value of the expected urban real income over an unskilled worker's planning horizon.

$V_r$ - discounted present value of the expected real income over the same planning horizon.

He sums up four major features of his theory (Todaro, 1976)*16. Firstly, migration is stimulated primarily by rational economic consideration of relative benefits and costs, mostly financial but also psychological. Secondly, the decision to migrate depends on the expected rather than the actual rural-urban wage differentials and the probability of successfully obtaining employment in the urban modern sector. Thirdly, the probability of obtaining an urban job is inversely related to the urban unemployment rate. Lastly, migration rates in excess of urban job opportunity growth rates are not only possible but also rational and probable in the face of continued positive rural-urban expected income differentials. High rates of urban unemployment are therefore inevitable outcome of the serious imbalances of economic opportunities between rural and urban areas of most underdeveloped countries.

Although very appealing, the Todaro theory has also been criticized for having ignored the non-economic factors in the decision to migrate. The main shortcomings of Todaro's theory are:

I. It does not take into account the social factors like marriage etc.

II. The agriculture sector is hardly homogenous, particularly in Asia.

III. The implicit assumption that information about alternative opportunities is available everywhere and is accurate and costless to acquire is clearly inappropriate.

IV. Wages in the traditional sector are always lower than in the modern sector.

V. The decision to move is a once for all decision.

VI. It overlooks the possibility of migrants acquiring skills in the urban areas.

VII. Another weakness of Todaro's theory is its assumption that potential migrants are homogenous in respect of skill and attitudes and that they have complete information for working out the probability of finding a job in the urban modern sector.
VIII. Lastly, rural-urban migration might increase the rural-urban inequalities instead of reducing it as implied in the model (Chaudhari, 1978)*17.

1.5. i.e. Sjaastad's Human Investment Theory: Sjaastad (1962)*18 presented a human investment theory of migration which treats the decision to migrate as an investment decision involving costs and returns distributed over time. According to this model, a person is supposed to migrate if the present value of all monetary benefits from migration is greater than monetary costs involved. The theory thus involves costs and benefits at the origin and destination as well as transport costs. Later on, this theory was modified with additional cost and benefit variables and was applied to the study of rural to urban migration in Taiwan (Speare, 1971)*19. Benefits of migration are defined as the present value of potential income gains resulting from the difference in income between the origin and the destination. Non-monetary benefits such as those arising from location preference are also included in the theory. Costs include moving expenses, opportunity costs of forgone earnings between jobs and non-monetary psychic costs such as the disutility of leaving one's own community and settling in an unfamiliar environment. The theory also recognizes the effect of the individual characteristics of potential migrants. Older people are less likely to move because differential income returns from migration accrue over a shorter remaining life span and psychic costs may be greater. Educated youth tend to be more mobile because their lifetime origin destination income differences are usually larger and their greater awareness probably reduces the psychic costs of migration.

The neo-classical theories as a whole (Lewis 1954, Ranis and Fei 1961, Harris and Todaro 1970, Todaro 1969, 1976 and Sjaastad 1962), thus contain several implicit propositions and assumptions: (I) The migration of people is caused by differences in the wage rates from region to regions; (II) Aggregate migration flows between regions are simple sums of individual moves undertaken on the basis of individual cost-benefit calculations; (III) Migration will not occur in the absence of differences in earnings and/or employment rates between regions and will occur until expected earnings have been equalized; (IV) Migration decisions stem from disequilibria or discontinuities between labour markets, other markets do not directly influence the decision to migrate;
and (V) The way for governments to control migration flows is to regulate or influence labour markets in the sending and/or the receiving regions (Cohen, 1976)*\(^{20}\).

In recent years, a 'new economics of migration' has arisen to challenge many of the assumptions and conclusions of the neo-classical theory (Stark and Bloom, 1985)*\(^{21}\). A key insight of this new approach is that migration decisions are not made by isolated individual actors, but by larger units of related people—typically families or households—in which people act collectively not only to maximize the expected income but also to minimize the risks and to loosen the constraints associated with a variety of market failures, apart from those in the labour market.

I.5.1.f Gravity Theory of Migration: - Perhaps because of Ravenstein's emphasis on the notion of distance or perhaps because of the involvement of social scientists with a background in physics, the use of and emphasis on gravity theory has been one of the more enduring approaches to understanding migration. The border area of inquiry of which the gravity theory investigations are a part is generally known as social physics, a term derived from the physical analog of the gravitational attraction of physical bodies translated into the attraction of areas or towns to population movements. For the development of this theory the credit goes to John Q. Stewart (1950)*\(^{22}\), who first introduced the isomorphic relationship of population movements with Newton's law of gravitation. He observed that the movement of persons between two urban centres would be proportional to the product of their population and inversely proportional to the square of the distance between them. It was the first attempt to give a cross section of a macro level interaction in a system of regions, which were theoretically stationary with respect to time, direction and space. The theory propagated that it its economic base of a country, which is fundamentally important for attracting the migrants. This can he expressed in the following mathematical form:

\[
MI = K \frac{P_1 P_2}{D^2}
\]

Where, MI - migration index
K - proportionality constant
P_1 - population size of settlement 1

13
P_2 - population size of settlement 2
- d - distance between the two settlements.

Just imitation of Newton's law of gravitation to population movement, the theory has several shortcomings in it. Firstly, the basic weakness of the model is its lack of an adequate theoretical basis. Secondly, the assumption that all places are populated by standard people with identical needs, tastes and contacts is questionable. Thirdly, the theory ignores return migration, compulsory moves and migration of the highly specialized. Fourthly, migration could not be considered independent of explicit societal decisions. Lastly, it neglects the age and sex profile of the migrant.

1.5.i.g: Principle of Least Effort: - Zipf (1940)*23 formulated the principle of least effort which points out that the lesser the effort, the greater is the desire to migrate. The effort includes among others things, the distance involved in migration. In other words, the greater the distance, the greater is the effort required for overcoming the difficulty and, therefore, the smaller is the number of migrants. Thus, it simply says that inter-community movement between any two communities P_1 and P_2 that are separated by an easy transport distance D will be directly proportionate to the product P_1 and P_2 and inversely proportionate to the distance D, which can be summarized as follows:

\[ M_{ij} = k \frac{P_i P_j}{d_{ij}} \]

Where M = migration from place i and j
P = population at places i and j
D = distance between places i and j
K = proportionality constant.

The theory has more or less the same kind of shortcomings like the gravity model.

1.5.i.h Intervening Opportunity Theory: - In 1940 Stouffer*24 presented his theory of intervening opportunity. He argued that migration is not a mere function of distance and population size but also of the existence of what he called intervening opportunities. He assumed that "the number of persons going to a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities". It can be expressed as:
$Y = k \frac{\Delta X}{X}$

Where, $Y = \text{expected number of migrants from a place to a particular concentric zone or distance band around that place.}$

$X = \text{number of opportunities within this band}$

$X = \text{number of opportunities intervening between origin and midway into the band in question.}$

$K = \text{proportionality constant.}$

In 1960 Stouffer further modified his hypothesis and introduced an additional variable of competing migrants. This revised model postulated that the total number of individuals migrating from place $A$ to place $B$ was a function of the number of opportunities at place $B$ and an inverse function of the number of opportunities intervening between place $A$ to place $B$, as well as the number of other individuals competing for opportunities at place $B$. This revised model can be expressed as:

$M_{ij} = k \frac{P_iP_j}{(O_i)(C_j)}$

Where, $M = \text{migration from place } i \text{ and } j$

$P = \text{population at places } i \text{ and } j$

$O = \text{the number of intervening opportunities, measured by the total number of out migrants in the circle centered midway between } i \text{ and } j \text{ and passing through } i \text{ and } j$

$C = \text{the number of competing migrants measured by the total number of in-migrants in the circle centered on } j \text{ and passing through } i.$

15.5.1.i: Behavioural Theory: The behavioural approach focuses on the way in which an individual forms a set of attitudes which are then translated into action. In 1965, J. Wolpert developed a behavioural theory for migration focusing a place utility matrix and "action space" as a framework for studying rational decision making in the context of
migration. It deals with subjective evaluation of net utilities: utilities of the individual's place of origin in contrast to utilities of alternative places of residence. In the process of comparing utilities of his own place with other alternative places, community characteristics can be useful sources of evaluation to the perspective migrant. His perception of places operates via a sampling process whose parameter is determined by the individual's needs, drives and abilities. (Wolpert, 1965)*27 Perceived utility of a particular place should be greater than the utility of the rest of potential destination and some areas for a migration to take place. If a relatively better area is not available a person will remain in the same place. He further clarifies that the degree to which the individual's action space accurately represents the physically objective world in its totality is a-variable function of the characteristics of both man and the variability of the environment (Wolpert, 1965)*28. In other words, the individual's decision to move or stay is a function not only of his own aspiration but also of the environment in which he lives. Later on a number of papers by Brown and Moore (1970)*29 and others have attempted to operationalize this concept. However, the main drawback of his method lies in its use of groups as subgroups of a population as surrogates for individuals, thereby assuming that the place utility, life cycle and search behaviour of groups and individuals are identical. The theory is especially suitable for intra-urban migration.

Situation Oriented Theory: - In the situation oriented theory, the push and pull hypothesis has dominated the mode of thinking, where migration is considered to be the outcome of the interplay and balance of expulsive forces and attractive forces in the place of origin and destination. Explanation has been the chief objective (Manglam & Schenarzweller, 1968)*30. The push and pull theory was developed in order to explain the causes of motivation for migration. The push and pull attributes of the place of origin and destination are recognized by Bogue (1969)*31. He suggested that there were positive and negative aspects of migration provoking situation. Migration may occur as a search for opportunity to improve one's lot in life. In this case destination exerts a pull on migrants. Migration may occur as a search for opportunity to improve one's lot in life. Migration can also occur as a flight from an undesirable social and economic situation. These situations constitute the explosive push of the community. Migration generally takes place when the positive pull factor at the place of destination are outnumbered by
negative push factors at the place of origin, where the push factor is very strong, origin selectivity is at the minimum, where pull stimulus is greater, there will be an appreciable selectivity. As Hassan (1971)*32 points, “those who migrate due to pull factors find it relatively easy to adjust to urban life compared to those who migrate due to push factors.”

The push factors at origin are such factors as high rate of natural increase, depletion of natural resources, drought and flood and other climatic condition etc. Pull factors working at destination include discovery and development of new resources, new industries and emergence of new services and trade centres. Some factors operate either way like changes in demand, joint policies, entertainment facilities and personal factors (Nelson, 1955)*33.

Despite the push and pull theory’s elegant abstraction of the specific forces generating migration, a number of researchers have criticized it as an oversimplification of a highly complex process. The forces of accumulated push and pull factors can be so overwhelming that it neglects making a clear reply as to why some migrate and some do not. The use of Lee’s*34 conceptual framework which incorporates the push and pull factor both at the place of origin and destination would overcome this limitation. Another difficulty with push-pull analysis emerges when an attempt is made to characterize the combined effect of all the factors as predominately either push or pull. Some scholars have avoided this kind of difficulty by observing that many push and pull factors can be mated into pairs, each pair representing two values of one single variable. Thus Herrick (1965)*35 certifies that push and pull hypothesis of lower rural and higher urban income into one in which urban migration is a function of expected rural-urban income differences. Similarly, Kuznets and Thomas (1967)*36 speak of differential economic opportunities to explain push and pull hypothesis. However, Bogue (1963)*37 emphasized that push and pull factors must be viewed from overall demographic context. Under conditions of high natural increase in population not only in rural areas but in the urban areas as well in developing countries, the push factor operates in the urban areas also. He called it as ‘push back’ factor.

Thus, the theory of migration is still in an underdeveloped stage. Though migrational researchers have put forward a number of hypotheses, theories and models, there is still a need for more research to test the hypotheses and explain the process.
theoretical framework, which can include all the hypothetically relevant factors of migration and can also specify their interaction in an empirically testable form, is the most immediate need. That is why Bogue (1959)* stated that one of the most important findings of the empirical research on internal migration to date is that, like so many other events in the realm of human behaviours, there are no laws of migration. He has suggested that apart from the age factor, differentials in regard to other factors, do not appear to follow any set pattern in all societies:

I.5.ii: Short Review of Previous Work

The word ‘migration’ derived from the Latin ‘migrane’ means to change one’s residence but by current definition “Migration is a form of geographical mobility or spatial mobility between one geographical unit and another, generally involving a change in residence from the place of origin or the place of departure to a place of destination or a place of arrival. Such migration is called permanent migration and should be distinguished from other forms of movement which do not involve a permanent change of residence.” (UN, 1956)* In the context of Indian Census, a person is considered as a migrant by ‘place of birth’, if the place in which he is enumerated during the census is other than his place of birth. Similarly, a person is considered as a migrant by ‘place of last residence’, if the place in which he is enumerated during the census is other than his place of last residence. (Roy, 1989)* However, our study is based on the definition of national sample survey of the 55th round: A normal resident member of a sample household is defined as a migrant if the person’s place of enumeration is different from his place of residence for more than six months. Mangalam (1968)* has rightly pointed out that the overwhelming majority of the case of migration researches have been concerned with four basic questions: (i) Who migrate? (ii) Why do they migrate? (iii) What are the patterns of flow and direction of migration? (iv) What are the consequences of migration? These questions may be studied with the two different points of view, migration streams and migration differentials or migration expectancies. Migration streams help to understand the volume and direction of movement from place to place, whereas migration differentials have the differences among the migrant sub groups according to the different characteristics of the rural society (Long, 1973)*.
1.5.ii.a: Determinants of Out-migration: - The factors influencing the decision to out-migrate are varied and complex, from one country to another or from one region to another within a country depending upon the socio-economic, demographic and cultural factors of the origin, on the one hand and upon the conceptualization of migration process and the scale of investigation on the other. High unemployment rates, meagre incomes, high population growth, the number of previous migrants, dissatisfaction with housing, the demand for higher schooling, rural-urban wage differentials and the sex ratio have been considered as some of the main determinants of rural out-migration in most countries (Yadav, 1989)* 43 It is further verified that an increasingly large number of research studies have revealed some important determinants of rural-urban migration. It has often been stated that rural poverty, high rates of under employment and low wages are the major determinants of rural-urban migration. (Bose,1961)* 44.

For the first time Davis (1968)*45 made a brief interpretation of internal migration on the basis of 1931 census data. He was of the view that the continuous dependence of most of the people on agriculture, lack of education, low level of industrialization were the main factors responsible for the immobility of the Indian population. Yet we find a significant proportion of people move from one place to another and hence it is essential to know the factors responsible for their migration. However, Zachariah (1964)*46 rightly pointed out that “it is generally assumed that the Indian population is comparatively immobile, but granting that the proportional movement is very insignificant, the absolute number involved in the internal movement has been large.”

In the past few decades due to expansion of trade, commerce and industry, gaps between rural and urban sector in respect of employment opportunities and wages have considerably widened with the result that the urban complexes are expanding at the cost of rural depopulation. It is perhaps in this context that Mayur (1983)*47 while discussing the urban crisis in India observes that during the past decade, millions abandoned India’s villages, the repositories of Indian culture crowded into gargantuan cities creating intolerable urban conditions. This trend, which continues, must be stopped. Thus if any one is interested in stemming the tide of rural-urban migration, one has to examine the stress factors in rural areas that are responsible for pushing people out of this native villages and throwing them into the urban sector. Thus, there is a genuine need for
conducting more and more studies for explaining the nature of movements from rural areas as well as their causes and consequences. Shekhar Mukherji (1995)* further supports the above finding that “but such metropolitan cities could not produce adequate means of subsistence and shelter to such massive influx of rural peasants and unskilled and illiterate/ semi-literate migrants, who are thus compelled to get absorption in very poor urban informal sectors, such as, domestic servants, porters, road construction workers, maid servants, hawkers etc. These are low-paid services where wages are low, competition cut throat and exploitation severe. Such distress migration thus does not lead to development and higher qualitative change in urbanization. To unfold such complex processes in the Indian situation and to recommend probable alternative planning strategies in order to alleviate such problems are therefore the urgent research requirement.”

Causes of migration are usually in terms of push and pull factors. Push factors come under those circumstances, which compel a person or a family to leave their previous residence. On the other hand, pull factors constitute those attractions in the town, which induce them to choose it as their new home. Push factors usually include lack of employment opportunities, absence of industries and other non-agricultural occupations in the village. Among the pull factors, there are employment opportunities as well as educational, medical and other service facilities available there. But there are occasions when the push and pull factors overlap and sometimes amount to merely stating the two different aspects of the same reality. Even the migrant himself may not be able to distinguish whether he was pushed from the village or pulled into the town. It is rightly considered that a push-pull is subjective characteristic of migration (Yadav, 1989)*.

To analyze rural-urban migration in terms of only the push-pull factors has, according to Gino Germani (1964)*, the risk of oversimplifying the process, reducing it to a kind of mechanical balance of external and internal forces. It should not take account only of the fact that push and pull factors operate both at the place of residence and at the time of destination. In this context, he distinguishes three levels of analysis of the causes of migration viz. objective, normative and psychosocial. However, push is high lightened in different surveys as the main motivating factor behind migration as the rural poverty
rather than the urban prosperity is held as mainly responsible for urban growth in India. A relative majority of those who move to urban areas are pushed out of rural areas because of underemployment at home, meagre income and insufficient land to cultivate. However, a significant number are also pulled into cities because of the help and assistance provided by their friends and relatives in securing employment for the migrants.

Several developmental activities like construction of roads, connecting many villages to nearby towns, advent and wide spread use of mass media like television, radio, mobile, cinema, newspaper etc also operate as push factors, because the rural folks become aware of their economic and social drawbacks (Yadav, 1989)*51. The similar statement is put forward by Panda (1986)*52 that the so called backward communities suffering from social injustice for generations often look for opportunities to escape into cities, which apart from better employment promise some less among anonymity so that caste prejudices are of lesser consequences. For them the city is relatively a social leveller where enterprise counts more than castes. Thus, large number of Harijans and other occupational castes pour into the city. In some cases, differences with the head or member of the household have also been reported as a cause of out-migration.

The above findings have, however, been challenged by Sovani on the basis of investigations of three districts of Orissa. He emphasized that the potential rural out-migrants would become actual out migrants only if they were sure of getting employment elsewhere, and that they would be unwilling to migrate to urban area unless they were assured of permanent employment as against temporary work there. His contention is that could push be the driving force of the rural-urban migration, the economically worse of would have formed the majority of the migrants into the urban areas in search of employment opportunities there (Sovani, 1961)*53.

Greenwood’s (1971)*54 regression analysis of migration in urban areas concluded that migration occurs on both sides of the scale, poor and rich both migrate from rural areas. In terms of the cause of migration he says that economic factors such as transportation costs, income and job opportunities are very important in migrant’s decision to the city. Rural migrants were found to have migrated to rapidly growing cities. On the study of ten city surveys, Bulsara (1964)*55 also hypothesized that adverse
or unsatisfactory economic conditions in the original habitat form the largest single push factor to stimulate the movement of people to cities. The second important cause of compulsory migration is dependence as the head of the family or household. The rural migration is much more within the same district or nearby metropolitan cities, whereas urban migrants travel further in search of employment. Industrial cities like Mumbai, Kanpur, Jamshedpur etc, attracted a larger proportion of such in-migrants than the non-industrial cities.

Brij (1971)*56 suggested that the educated migrants are primarily attracted by the pull factors at the place of destination whereas the illiterate migrants are primarily forced out by the push factors at the place of origin. It is also observed that the educated people in India migrate to urban areas not only because they do not have jobs in rural areas but also because they develop distaste for traditional work in the village (Kothari, 1975)*57. Similar results were found by Lipton (1980)*58 who concluded that most of the migrants in the Third World countries originate because (i) The very poor, landless and illiterate predominately are pushed from the village and (ii) The relatively well off and better educated are more likely to be pulled by urban centres providing attractive economic opportunities.

A number of studies also support the hypothesis that migrants are attracted to urban areas in search of better entertainment or bright light (Findley, 1977)*59 or better education facilities for their children. In addition, a number of factors such as presence of friends and relatives in urban areas, initial assistance and desire of migrants to break away from traditional village norms, also affect migration. Factors, which influence migration probably, change with the level of development of a society. As one self-evident example, the development of transport system has reduced the different rate of distance on migration (Greenwood, 1971)*60. More broadly, it has been hypothesized that non-economic factors become more important than the economic factors at higher level of development (Zelinski, 1971)*61.

Unlike rural to urban migration which is more economic than social in nature, rural to rural is more social than economic in character. In most countries of South Asia, land colonization is essentially a dear system as well as the outcome of growing agrarian problems and the inability to tackle rural poverty. This land accumulation in the hands of
a few landlords compels other small size landholding farmers to out-migrate from the villages. The wide spread existence of near landless is unproductive from the economic development point of view if not irrational system. Near landlessness thus surfaces as both a cause and consequence of under development. Economically, the productive potentiality of a vast majority of migrants, both the landless and near landless has generally been wasted or under utilized as they have been deprived of adequate land and/or regular jobs. In the context of predominately agricultural economy and a consistently fast growing population, the small and declining size of agricultural holdings has been basic to the process of out-migration (Shrestha, 1990)*62.

As to the features of out-migration from the urban area, (Premi, 1976)*63 has analyzed the nature, causes and characteristics of the migrants along with the channels and sources of information about potential job opportunities. In this study, he pointed out that the sources of information, i.e. friends and relatives, previously out-migrated from those towns, were instrumental in providing information and in helping their initial adjustment. So, it is clear that urban out-migrants follow the same patterns as of rural out-migrants. The study also shows that a major portion of movers arrived at their present place of destination directly in one move instead of steps. In this kind of migration, migrants generally move from small towns to metropolitan cities or towards other class one cities. In the small towns, their economic base does not give good job opportunities and hence the conditions develop as push factors. Therefore migrants start thinking to shift towards large metropolitan areas of the country because job prospects are better than in the smaller towns.

1.5.ii.b: Pattern of Migration: - The pattern of population movement within a country is slightly different in developed countries from what it is in the developing world. This becomes clear when Biggar's (1979)*64 study on internal migration in USA analyzes that while in 1960 approximately one in five households changed residence every year, it has showed one in six households in 1970. By 1970, a new pattern of migration from metropolitan to non-metropolitan cities has emerged. It has also observed reversed south-north migration due to growth of some industries in the south.

Davis (1951)*65 has studied the volume and types of internal migration in India. He has discussed the extent and direction of migration under the headings of (i) In
migration: The Foreign Trickle (ii) Emigration: The overseas movement and (iii) Internal migration. He has studied the volume and types of internal migration in detail. He has also discussed the causes of an overall immobility of the Indian population but his studies relate to 1931 and earlier periods only. This was followed by more detailed study of Zachariach (1960*66 and 1964*67), who in his penetrating study concentrated on external migration during 1901-31 and 1941-51 in order to measure and describe its magnitude and its contribution to the process of population gain or loss.

The data on rural or urban origin of migrants and duration of residence at the places of enumeration was collected for the first time in 1961. Based on these data, Mitra (1967)*68 made a detailed analysis of internal migration with urbanization in India. In this study, he attempted to study three major aspects: (a) general features of internal migration (b) functional classification of India's towns and their broad features and (c) the urban industrial outlook. He stated that in India, 67% of the total population was enumerated at the place of birth and 88% of total migrants within the native state. He also found that 98 million females migrated into the places of enumeration and the most possible reason for most of this female migration was marriage and migration to their parent's home for giving birth to their children.

Gosal's (1962)*69 study of census data can be distinguished from other studies on account of the fact that he gave geographic perspective to the problem of migration in India. He derived his analysis on the basis of emerged migration pattern from the district wise map which he prepared on all India level. He identified, areas of in and out migration and also discussed spatial variation in mobility in detail. Extending this work to 1961 census data, Gosal and Krishna (1975)*70 discussed the patterns of internal migration in four streams of rural to rural, rural to urban, urban to rural and urban to urban migration. Their main findings are (i) The proportion of long-distance migration is strongly related to the size and age of the industrial concentration (ii) The data have shown significant flow of people towards newly developed agricultural lands (iii) Growth of mining activity and the emergence of associated industries led to considerable migration, and (iv) The areas of high density of rural population and low productivity have been the out migrating areas. Further spatial analysis of migration flows suggest that most migrants have been drawn to urban industrial concentrations in Maharashtra, West
Bengal and Karnataka plantations in Assam, agriculturally developed states of Punjab and Haryana. Moreover, Saxena (1977)*61 has noticed the heavy drift of population towards West Bengal, Maharashtra, Punjab and Madhya Pradesh during 1951-61. On the other hand, J&K, Kerala, Orissa, Ardhra Pradesh, Gujarat and Rajasthan attracted the least number of migrants. The study reveals that immobility is an important characterizing features of Indian population and in case of migration the most incidences being only short distance.

On the basis of 1971 census data, (Kshirsagar, 1973)*72 found that more than 80% of the movement was within the district. The study finds that nearly 92% of the rural males were immobile and on the contrary 25% of the urban males were migrants. The study shows that though Andhra Pradesh, Kerala and Madras are not loosing states, the percentage of migrants of the male population is higher than the average for 15 states. This pattern is found because of considerable movement within the state, which is not the case with other loosing states such as U.P, Bihar and Orissa. Extending the work on 1981 census data (Srivastava, 1988)*73 depicted a clear picture of the current situation in India. The study reveals that there were 204.2 million migrants in India, constituting 30.7% of the total population. The study also estimated the inter decadal migrants which, reveals that Maharashtra, Gujarat, West Bengal and Orissa have had large number of in migrants during 1971-81. On the other hand, U.P. and Bihar have a large number of out-migrants.

Providing the latest patterns of out-migration, Singh (1992)*74 noticed that metropolitan centers and large cities which offer a wide range of employment opportunities are the major attraction for rural urban and urban-urban migrants, Calcutta, Bombay and Kanpur drew large number of migrants in the early stage of industrialization whereas Delhi and Bangalore, the fastest growing metropolises, have been favoured destination for migrants in the post independence period. A study done by Kundu and Gupta (1996)*75 also explains that after independence, the increasing intra-state regional disparities mainly caused by step motherly activities by the central government in distribution of subsidies has resulted in the development of few large cities. Besides, the growth of agriculture has been extremely uneven; increase in land and labour productivity has been restricted to the few districts only. This sharpens inequality and encourages intra-state migration, particularly from rural to urban areas.
1.5.ii.c: Characteristics of Out-migrants: Population movement and its social, economic and demographic characteristics have drawn increasing attention of social scientists in recent years and a large number of studies on migration have been conducted. It is evident that propensity to migrate differs significantly among various socio-economic groups of the society. The range of mobility differs from section to section, class to class and place to place. As a result, the propensity of migratory tendency is quite varied and dissimilar in accordance with cadre, group and society. It is generally assumed that out-migrants possess three types of main characteristics, namely, demographic, economic and social. Knowledge about the personal characteristics of the out-migrants is important from two points of view. First, it gives us an idea about the determinants of out-migration. Secondly, it throws light on the influences of out-migration on both the sending out and the receiving areas. On the whole, the literature on out-migration suggests that out-migration is a selective process. Out-migrants do not represent a random cross section of the population of the area of origin. The characteristics distinguish them from the non-migrants (Bora, 1996)* 76.

The characteristics of migration give the selectivity of certain persons or groups based on age, sex, class, marital status, social status, income, education, type of work, size of landholding, size of household etc. to be more mobile than others. Several authors have repeatedly tried to establish universal migration differential, which could be applied to all countries and at all times. But to date the only differential which seems to have stood the test in researches undertaken in various countries and various periods is that persons who are young adults are more prone to migrate than those belonging to other age groups (Jansen, 1966)* 77. In context of India, Zacharia (1961)* 78 found that the age distribution of migrants to Greater Bombay was distinctly different from that of the non-migrants. Among the migrants there was an excess of adolescents and youth adults. When the migrants were studied, 81.05% belonged to the age group of 15-59, the corresponding percentage for non-migration was also found to differ from that of the general population in Maharashtra. Dorothy Thomas (1938)* 79 after an exhaustive study of the prevalent knowledge regarding migration arrived at the conclusion that persons in their teens, twenties and early thirties are more migratory than other groups.

26
The educational status of a person as well as of his other family members plays an important role in migratory enterprise. A number of studies dealing with the internal migration have shown that migrants are found to be relatively more educated than non-migrants with respect to place of origin and less educated with respect to the place of destination. Hugo (1979)*80 discovered that migrants in Jakarta from other provinces of Indonesia have a statistically significant higher level of formal educational level than non-migrant with considerable variation according to place of origins. However, Singh and Yadav (1981)*81 have shown that the persons who have obtained a higher level of education tend to migrate to nearer distances as compared to the less educated persons. The reasons may be that several state governments of India have formulated policies to absorb their residents on top priority basis.

With regard to occupation, Visaria (1969)*82 emphasized that migrants in general have lower unemployment and hence cannot be held responsible for contributing to higher urban unemployment. Indeed, the rural-urban migration is more selective of occupation, which require a sizeable workforce in urban centres and, on the other hand, most of the migrants have been pretty sanguine that their journey outward will secure for them some non-agricultural job. The kind of job opportunities in urban areas which hold the promise of a standard of living better than that in rural areas is one of the most powerful pull factors available at the places of destination (Soni, 1976)*83·

Lipton (1976)*84 in his study finds that the migrants who are very poor, landless and illiterates are found to be having more frequency of migration, which is due to the fact that their poor socio-economic condition forces them to migrate. The second important category of migrants fall within the highest economic groups of well educated workers, who are more likely to be pulled. On the other hand, John connell's (1976)*85 study reveals that both poor and higher income group strata of population have a similar tendency of migration. However, migration of both these strata depends upon the availability of resources. The evidence on the characteristics of individual migrants suggests that both rich and poor migrants move out of villages. Sovani (1965)*86 in a survey of migrants from two districts in Bihar found that households with the highest propensity to migrate were in the lowest and highest income groups.
So far as the sex selectivity is concerned, rural-urban migration is also sex specific having considerable variation among various countries. Writing about Britain in the late nineteenth century, Ravenstein (1885)*87 says that the males were more migratory over long distances whereas females dominated the short distance migration. Of course, the propensity of female migration is higher in India in rural to rural migration flows mainly due to marriage (Singh, 1986)*88. However for rural-urban migration in India, relatively young unemployed or under-employed males migrate in large numbers (Oberai, Prasad and Sardana, 1989)*89, while women stay back in the villages (Singh, 1988)*90. Recent analysis reveals that shift to urban areas is no longer dominated by males. Increasingly large numbers of females are moving into India’s urban area either singly or with their families. Nearly half of the 15.7 million rural-urban migrants in India in 1971-81 were females (Pathak, 1992)*91.

Most indications suggest that migrants tend to come from relatively large families: i.e., from families in which both need and earning capacity have expanded relative to local earning opportunity. Upton (1967)*92 found that migration from six Nigerian villages was positively correlated with family size. As far as caste is concerned, Bora’s (1996)*93 study of U.P Hill village reveals that about 92% of the migrants belonged to high caste- Brahmin and Rajput families which covered 76% share in the total households. The higher incidence of migration among the high castes may be largely due to their relatively higher level of social and economic status. A related aspect is the marital status differential in migration. But much less information is available on migration differentials by marital status than for age and sex (UN, 1967)*94. It is found that to some extent the distance moved by a migrant is closely associated with the marital status, depending on the varied type of responsibilities. Married persons having higher responsibilities usually try to move to shorter distances and avoid going to far distant destinations with a view to visiting their families easily and frequently. Yadav (1977)*95 further reported that a greater number of highly educated married migrants are accompanied by their spouses in comparison to the less educated.

1.5.ii.d: Impact of Out-migration on the Place of Origin: - Hardly any studies describe the effects of out-migration on the place of origin, i.e., rural areas and under developed regions. Rural male out-migration has demographic, economic and social developmental
consequences for both the sending and the receiving regions. As in the case of the relationship between rural development and the tendency to out-migrate, there are two opposing views regarding the impact of the male out-migration on the sending rural areas. According to one view, the negative consequences of out-migration for the rural area are predominant in terms of the loss of young males and more educated workers (Khan, 1985)*96. A negative implication of male out-migration is also observed concerning the increased burden of de facto female heads of households in rural areas, specifically in poor peasant or landless households (Jetly, 1987)*97. On the other hand, scholars believe that the rural sending regions gain significantly from out-migration as remittances raise the income and the standard of living of the out-migrating households and often a part of the remittances is invested in productive assets and activities. The return migrants also facilitate technological change which helps in increasing agricultural productivity (Oberai, Prasad and Sardana, 1989)*98.

Simmons (1983)*99 observed that there is enormous variation in rural development which accompany population movements. Some rural regions experience heavy out migration and population decline, while others are characterized by light out-migration; certain households and villages experience loss of the young, healthy adult member, other suffer only a temporary loss. In some cases, the migrants are entrepreneurs who take their financial capital away. In other cases, the migrants go abroad to make money or gain skills and bring back both the skills and the capital to their home places. One village may experience a decline in agricultural production through the loss of migrant labour, while another may have sufficient surplus labour available in the community to fill in the jobs left vacant by the departing migrants. Depending on economic circumstances and migration patterns, the net effect of out-migration on the household or the village can be either positive or negative. Morrison (1973)*100 argued that out-migration reduces surplus employment in the short term but in the long run the lack of labour may inhibit investment, decrease labour opportunities and labour production. Daunzo et al. (1981)*101 also noted that out-migration can eventually lead to labour shortages and increased wages but that will tend to happen after delay of several years, if at all. On the other hand Lausing (1967)*102 said that since out-migration usually draws away the more highly qualified members of the labour force-the young, the
educated and the skilled and the labour force left behind tends to be over-aged, under-educated and under-skilled. This effect is further accentuated by in-migration of persons similar to those who have remained behind.

Migration may also lead to commercialization of agricultural activity, which is further encouraged by favourable changes in the commodity terms of trade and extension of markets. Technological changes and capital investments resulting from migration, viz. remittances contribute to increasing monetization and mechanization of agriculture and also increase the wage labour component of total employment. Thus, out-migration acts as an economic adjustment mechanism by reducing local labour surpluses and lessening competition for scarce employment. But what begins as an equilibrating force may lead to disequilibrium as the rich areas become richer and the poor areas become poorer (Olicra, 1978)*103. At some point, out-migration accelerates local economic distress by reducing the productivity of the area's labour force and hence its attractiveness to new industry.

In context of the effect of income, Lipton (1980)*104 observed that sparse evidences suggest that the net remittances are quite small relative to village income, which are concentrated in rich village households, unlikely to suffer from capital constraints and tend to be used to finance investment except in house building. His argument may be supplemented by another village study of U.P., where migrants from the landlord households comprised only 31 percent of the total migrants but accounted for 57 percent of the remittances while agricultural workers comprised 33 percent of out migrants but contributed only 10 percent remittances (Mishra,1982)*105. Connell et al. (1976)*106 on the other hand, reviewing studies in Africa, India and the Pacific, found that the overwhelming weight of evidence suggests that the spending of remittances reflects the poverty and lack of investment opportunities from which the migrants came. The majority of remittances are consumed for everyday household needs or in conspicuous consumption. However the consumption pattern of remittance depends on the necessity and the characteristics of a village or household. As Hugo (1987)*107 pointed out that poorer villages and households used the remittances for basic necessities such as food staples while more prosperous villages and households used remittances to buy non subsistence foods and education. In the similar way, Mehta (1991)*108 with the
study of Hill region of U.P recognizes that the migrants from the higher income groups tend to send lesser remittances because their families at the native place are already well off and also because their own expenditure levels are high. On the other hand, population with lower income groups are always concerned with the poor economic conditions of their households which compels them to spend lower amount of income on themselves at the place of destination and contribute as much as possible towards their families at home. This migration of lower income group of population leads to a better income contribution to their households and also helps in reducing the income inequalities among the different groups in the villages. The proportion of remitters rises with the duration of migration; this tendency is particularly marked among out-migrants from cultivating households who are slower to start remitting. But, as a whole this analysis shows that once the migrants start sending remittances they continue to do so and that the proportion of remitting does not decline with the length of time. There is, thus no direct evidence that family ties weakens over time. However, in case of urban in-migrants the remittances decline over time (Oberai et al. 1983)*

It has been reported that there is a lower level of fertility for the migrant than the non-migrant rural natives. Delayed marriage, separation of husband and wife and a change of attitude of the husband are the main factors causing fertility differential between out-migrants and non-migrants in rural areas. Visaria's (1969)* study of Gujarat indicated that although the high fertility of recent migrants may inflate overall fertility in urban areas, the low fertility of rural women whose husbands have separated from them may lower the fertility levels.

I.5.i.e: Out-migration from Bihar: It has been witnessed that massive volume of migrants are migrating from rural and backward areas of Bihar to West Bengal where they are working as coolies, vendors, hawkers, domestic servants etc. for more than hundred years. Historical evidences also show that low wages in Bihar compelled poor people to migrate even to Fiji, Mauritius, Maldives and Caribbean islands as labourers. Migration has been witnessed more in South Bihar than North Bihar. Historically, it was during the Mughal period that non-tribals started infiltrating into the Santal Parganas and Chotanagpur belt. Before the 17th century, both Chotanagpur and Santal Parganas were populated entirely by the tribals but during the last three centuries there has been large-
scale in-migration of non-tribals. As a consequence, in many parts of Chotanagpur, the tribes have been reduced numerically to nearly one tenth of the district population (Badgaiyan, 1986)*111. With the in-migration of non-tribals, land alienation from tribal increased at a faster pace throughout the 19th century because of the system of granting jagir to non-tribals and the tribals were largely reduced to rent paying tenants. Further, the famines of 1866-69, 1873-74 and 1893-94 dealt a heavy blow which accentuated their miseries and large-scale out-migration followed (Choudhary and Bhowmik, 1986)*112. The exodus generally took the direction towards the West Bengal and Assam tea gardens. According to reports, more than three lakhs of those born in Chotanagpur and Santal Parganas were enumerated outside the tribal tract in 1881, nearly two lakhs only in Assam (Wleiner, 1978)*113.

The establishment of East India Company worked as a centripetal force for population concentration in West Bengal from the adjoining states while the areas, which form part of the present Bihar grew as a periphery of the Calcutta Presidency. The retarded development of Bihar progressively pushed out a large number of labourers to join the growing industry, trade and commerce of the core region to pursue low paying jobs which the indigenous Bengali population did not want to do. However, the sole object of migration from Bihar to Bengal in pre-independence period was to earn their living and to save some money for remittances for meeting the wants of their families left at home. A certain percentage of the migrants, however, chose in course of time to make Bengal their second home under such favourable circumstances as created by the prospects of secured monthly earnings and the facilities of railway transport. Nonetheless, they never lost touch with their native villages in Bihar completely (Chattopadhya, 1987)*114. The extent of out-migration to west Bengal can be gauged from the fact that one out of every 36 born in the state of Bihar was found in West Bengal in 1951. The migrants, however, are home loving and family rooted in the soil of Bihar and do not generally settle permanently outside the state. They are non-permanent periodic migrants returning annually or at longer intervals to their home village (Enayat Ahmad)*115.

As far as U.P. is concerned, apart from the industrial complexes of Kanpur, Agra, Meerut etc, the vast tracts of land, which were converted into cultivable productive farms
under Green Revolution attracted a large number of agricultural labourers from Bihar. Among other factors, marriage migration to a neighbouring state from Bihar seems to be important in this case. Recently, after successful implementation of Green Revolution, Punjab and Haryana also received a bulk of migrants from Bihar as permanent or seasonal workers. Again, the construction and manual works in Delhi on a large scale also invited a large number of migrants from Bihar. The most permanent migrants are of high caste people but the circumstances compelled them to work as agricultural and construction workers, which was against their caste status (Singh and Ayyar, 1981)*116. They came to Punjab, Haryana and Delhi just to hide their status as labourers. Among the seasonal migrants, most of them are of low castes and tribals of chotanagpur (Gupta and Bhakoo, 1980)*117.

Sinha et al. (1985)*118 in their study of rural-urban migration and urbanization in Bihar observed that the location of manufacturing industries and expansion of services in large towns may be enumerated as important factors, increasingly drawing migrants from rural areas and smaller urban centres to bigger towns and cities. As a result, Ranchi, Jamshedpur, Patna and Bokaro cities have increased their size at a faster rate than Bhagalpur, Munger, Darbhanga and Muzaffarpur. These urban centers, which depend partly on services and small-scale industries and partly on farms for food, have a slower rate of growth due to low employment potentialities. While Mahto (1986)*119 studying the population mobility and economic development on the basis of 1971 census data in Eastern India found that except economically attractive areas, all the areas have predominantly short distance migrants. The study, however, finds a decline in the share of short distance migrants in Bihar. The study shows that except in the case of economically attractive districts, the share of long distance migration had decreased resulting in an increase in the share of medium or short distance migration.

A study done by Mukherji (1990)*120 shows that the migration patterns within Bihar are extremely polarized and concentrated in a few chosen centres of mining and manufacturing like Dhanbad, Jamshedpur, Ranchi and Bokaro and in the administrative centre of Patna. The pattern of human displacement of labour arises from vast expanse of sub-marginalized and neglected rural districts of western, eastern and northern region of Bihar, where agriculture is underdeveloped and industries are not established. Ghosh and
Sharma (1995)* on the basis of primary data from six agriculturally poor districts of Bihar concluded that the wages are very low even in the prosperous region of Bihar. Temporary rural marginal workers migrate within the state from the agriculturally backward districts of the Northern Bihar to the relatively prosperous region of Central Bihar.

1.6 Introduction to the Study Area

1.6.i Bihar

The area of study consists of the state of Bihar in general and the Bhagalpur district in particular. Topographically, the state of Bihar is a land locked territory of a quadrilateral shape tapering towards the south, bordered with Nepal in the north, West Bengal in the East, Orissa in the south and Madhya Pradesh in the West. Situated between latitudes 22° North to 27°31’ north and longitudes 83°20’ east and 88°17’ east, it covers 5.3 percent area of the country. The maximum north- south extent of Bihar is about 605 km and the maximum east-west width about 483 km. The river Ganga flows right across it from west to east dividing it into two unequal parts, the southern portion being almost double the northern portion. Bihar comprises about 10.21 percent of the country’s population. While it is the second most populous state of India following Uttar Pradesh, it ranks 9th according to area and the third highest in terms of density after West Bengal and Kerala. There are 42 districts according to 1991 census. The per capita income is quite low and about 59 percent of the population in rural areas is still below the poverty line. It ranks 15th among the 17 major states of India on per capita income.
It continues to be a land of villages with nearly 85% of its population living in about 67000 villages. On the basis of physical features, Bihar may be divided into three natural regions viz. (i) The North Ganga Plain (ii) The South Ganga Plain and (iii) The Chotanagpur Plateau.

(i) The North Ganga Plain: - On the basis of similar socio-ecological zone, the foothills of Himalayas are also clubbed with the North Ganga Plain in the present study. It extends from Terrai in the north to the Ganga in the south covering an area of about 56980 sq km of alluvial soil of great depth and extreme fineness. It is characterized by rolling plains, heavy rain, high soil fertility and recurrent floods. The general slope is towards the southeast. It remains in the grip of the old zamindari system, marked by abject poverty of the bulk of its people. The population density is high with pressure on land continually increasing. Although the old landlords have left, large numbers of rich and middle farmers remain in villages. The incidence of poverty and illiteracy is high, especially among the extremely backward and scheduled castes.

(ii) The South Ganga Plain: - The South Ganga Plain lies between the Ganga and the Chotanagpur Plateau in the south. It is defined by 150 m. contour in the south. It is 100 to 140 km wide in the Son valley in the west whereas it tapers just to 3 km wide ribbons when the Rajmahal Hills meet almost directly. There are numerous isolated hills located in this tract like Barabar, Rajgir, Kharagpur hills. Due to intrusion of Kharagpur Hills towards the north, Ganga has taken a sharp bend near Munger. It has been the cradle of great empires. Its inhabitants are hard working and assertive. It has a high percentage of scheduled caste population and the distribution of land is not as skewed as in north Bihar. A high rate of literacy has made people conscious of their rights and social unrest in this area is due to a feeling of comparative deprivation.

(iii) The Chotanagpur Plateau: - The area of Santal Pargana is also clubbed with the Chotanagpur Plateau in this study due to the same socio-ecological background. It extends south of 150 m contour. It consists of a series of plateaus of different elevation. A large area of the Chotanagpur Plateau is covered with forests. This plateau forms part of the great gneissic, schistose plateau of peninsular India. The average height is 600 m from the mean sea level but there are areas with 300 m also forming lower level plateau. The general slope of the region is towards the southeast. The western part of this region
slopes towards the north. There is high concentration of mineral resources in this region, where some important minerals, such as coal, mica, iron, bauxite, uranium, copper etc. are found. The region with its high industrialization and urbanization is changing the contours of the rural landscape. The villages are small and density of population is low. Mining activities in many districts have brought prosperity to the area. All important industries of the state are located in this region.

With large fertile plains, forest covers, potential water resources and huge coal and mineral resources, per capita income is one of the lowest among the states of India. Poverty in Bihar is not due to lack of resources but due to poor governance, underutilization and non-utilization of resources, low opportunity for investment and unequal distribution of wealth.

I.6.ii: Bhagalpur District: The district of Bhagalpur is located in between 24°30' and 25°30' north latitude and between 86°30' and 87°30' east longitude, which lies situated in the eastern part of the state. Covering an area of 5589 sq km., it occupies the 10th position among the forty-two districts of Bihar in 1991 in the order of area. It is surrounded by Madhepura, Purnia and Katihar districts in the north, Deoghar and Dumka in the south, Sahibganj and Godda in the east and Munger and Khagaria in the west. The river Ganga flows through the northern part of the district from west to east and divides it into two unequal parts. Covering a small area of 11648 sq. km, the portion north of the river is analogues in physical characteristics to North Bihar Plain, whereas the area south of the Ganga comprises bulk of the district and covers an area of 44673 sq. km. This southern part is to a great extent alluvial plain except towards the south in Banka subdivision where the land begins to rise and the hilly tracts commence. The maximum north-south extent of Bhagalpur district is 112 km and the maximum east-west width about 483 km.

Climatologically the district of Bhagalpur lies in temperate region, where the effect of northeast and southwest monsoon rains is felt. Hot summer (March-June) and pleasant winter (November-February) characterize the climate. The southwest monsoon generally breaks in the second half of June. The maximum annual rainfall occurs in July and August. The average annual rainfall is 117.4 cm almost uniformly through out the district. The normal mean daily maximum temperature rises to 44.4°C in May while it is only 8.0°C in January.
Economically the district of Bhagalpur lies in the transitional belt of granary land in the north up to forested and mineral belt of Chotannagpur scrap belt in the south. So far economic characteristics of the people are concerned, the main workers constitute 30.3 percent of the total population, which is slightly above the state average of 29.7 percent. The contribution of marginal workers to the total working population is very low in the district being only 2.5 percent. The share of industrial workers is 4.9 percent of the total main workers in the district in 1991. On the basis of 1991 census data there are in all 3629 villages in the district of which 2516 villages are inhabited and 113 villages are uninhabited villages. There are also seven towns in the district. Out of the total population 87.8 percent live in the rural areas and 12.2 percent in the urban areas. Total population and households enumerated in 1991 are 3202471 persons and 526471 households. Comprising 3.7 percent of the state’s population, Bhagalpur ranks 2nd only after Patna among the forty-two districts of Bihar in order of population. It has an average density of 571 persons per sq km, which is much higher than the state average of 497 people per sq km and more than double the all India average of 267 persons per sq km. It ranks 22nd district in term of density. It has a sex ratio of only 876 as against 911 in the state of Bihar. The literacy rate of Bhagalpur district was 38.9 percent, slightly above the state average of 38.5 percent in 1991. The percentage of the net sown area to total geographical area was 49.1 during 1992-93. The district has been divided into four subdivisions, viz., Bhagalpur Sadar, Naugachia, Banka and Colgong and 21 blocks. On the basis of geology and relief, Bhagalpur district is divided into the following 3 sub micro regions, which is shown in figure I.3.

The Ganga-Koshi Flood Plain: It lies between the Ganga and Koshi rivers in the northern part of the district. The Ganga flows through its southern portion whereas the Kosi through its north portion. The entire region is plain with slopes from west to east. Its height is 120 metres in the northwest, 36 metres in the east, 55 meters in south and 33 meters in the northeast from the mean sea level. Both the above-mentioned rivers bring alluvial soil during rainy season, which adds to the fertility of the soil. The areas falling on the banks of these rivers get flooded during the rainy season. Shoal and swamps are generally found near the banks of the rivers. Embankments have been constructed at several places beside the railway lines. Kalbalia rivulet also flows from west to east. Its
geology is mainly related to alluvium. The annual rainfall is 1001.7 mm. Paddy, wheat, urad and maize are the main crops.

It contains 213 villages and the only town is Naugachia. The region is spread over an area of 1121.7 sq. km and inhabited by 578611 persons. Out of this 94.6 % persons reside in rural areas and 5.4 % in urban areas. The region has a density of 516 persons per sq. km. There is a broad gauge railway line passing through the region which links with Khagaria district in the west and Katihar district in the east. National highway no. 31 passes through this region.

Central Bhagalpur Plain: The region forms the central portion of the district. The Ganga flows along its northern boundary. The Banka Forested Upland in the south, Sahibganj, Dumka and Godda districts in the east and Munger district in the west bound it. The entire region is a plain area having slope from south to north except the northeastern portion along the Ganga River. The height of region varies from 129 meters in the southern portion to 55 meters in the north from the mean sea level. The Chandan is the main river, which flows from south to north with its tributaries. Geology is related to alluvium. A few patches of Chotanagpur gneiss and Rajmahal trap/ inter-trappean beds are also conspicuous in this region. Average annual rainfall is 1001.7 mm. Wheat, paddy, sugarcane and maize are the main crops.

It contains 2135 villages and the towns of Bhagalpur, Sultanganj, Colgong, Nathnagar and Habibpur. Bhagalpur is the district headquarter. The region is spread over an area of 2289.2 sq. km, which is inhabited by 1915934 persons. Out of this 83.7 % of people reside in rural areas and 16.3 % in urban areas. The region has a comparatively higher density of 837 persons per sq. km. Two broad gauge railway lines pass through the region, one in the extreme north region and the other linking the region with Bhagalpur town in the north and Bausi block in the south. A network of metalled roads also serves the entire region.
FIG.: 1.3

40
Banka Forested Upland: The region is spread over in the southern part of the district. It is surrounded by Bhaglapur Plain in the north, Dumka and Deoghar districts in the south, Godda district in the east and Munger district in the west. It comprises of Belhar, Katoria, Banka, Bausi and Chanan blocks. The entire region has an elevated surface. Its height varies between 150 to 404 meters at different places from the mean sea level. Scattered hillocks covered with forests are found all over this tract. The Chandan River flows from south to north along with its tributaries. Ravines are generally found in the southern parts of the region along the rivers. Geology is related to Chotanagapur gneiss, mica, schist, phyllite, quartzite etc. Annual average rainfall is 1001.7 mm. Pulses and oilseeds are generally produced here. Paddy is also grown in the low-lying areas, which are suitable for its cultivation.

The region contains 1281 villages and Banka and Amarpur towns. The region is spread over an area of 2178.1 sq. km., which is inhabited by 707926 persons. Out of these 93.7 % of people reside in rural areas and 6.3 % in urban areas. The region is sparsely populated with density of only 325 persons per sq. km. A few metalled roads are the backbone of transport system. The region is comparatively less developed.

1.7 Database

The data have been collected through field survey. The information covers the number of migrants, characteristics of migrants, pattern of migrants, linkages of migrants, impact of migration on the place of origin etc. For the secondary data, the main sources are:
1. Census of India
2. Statistical Abstracts of Bihar
3. National Sample Survey
4. District Census Handbook of Bhagalpur District

The study is primarily based on the primary data collected from sample households with the help of structured interview schedules. For primary sources of data, one of the important features of the present study is that most of the analysis is presented, taking into consideration the characteristics of the village households and of individuals. In fact, the data utilized for geographical analysis of rural male out-migration of Bhagalpur district is essentially based on the data at household level. Two types of
schedules are used to obtain the data for the present study. These are, (i) village schedule and (ii) household schedule. The village characteristics, such as facilities of education, medical services, transportation, distance from the nearest town etc. are noted in the first schedule. The household schedule is used for collecting detailed information regarding households and persons therein.

1.8 Sample Design & Methodology

The purpose behind the selection of Bhagalpur district as an area of study is that it is one of the highest male out-migrating districts in the state of Bihar. Secondly, it includes all the three major physiographic regions of the state, the North Ganga Plain the South Ganga Plain and the Chottanagpur Plateau. In addition to the above, the writer belongs to Bhagalpur district, where field survey has been easily done with the help of the local dialect, i.e., Angika in rural areas of the district.

1.8.1: Sample Design: Due to the empirical and spatial nature of the study and for providing proportional representation to each and every aspect of the local commons, certain sampling methods have been used for selection of sample villages and sample households.

Selection of Village: There are 3 distinct physiographic regions in the district of Bhagalpur, viz., the Ganga-Kosi Flood Plain, the Bhagalpur Plain, and the Banka Forested Upland. At least 3 villages have randomly been selected from each region of the district. Since the size of the villages is small in the Banka Forested Upland, four villages have randomly been chosen from this region. In all, 10 villages have been selected for the field survey. Thus, areal random sampling method has been adopted for selection of villages for the field survey. In addition to the above, selection of villages is also done on the basis of location of villages from the nearest urban centres, viz., within 5 km., 5-10 km. and above 10 km. The names of the selected villages are Kadwa, Madrauni, and Narayanpur of the Ganga-Kosi Flood Plain; Srinagar Gobrain and Lodhipur of the Bhagalpur Plain and Sabalpur, Bishanpur, Jamua and Kannodia of the Banka Forested Upland. (Fig. I.3)

Selection of Household: For selection of households preliminary survey of households was conducted on the basis of building material, economic activity and land holding status, and on the basis of the above economic status of the households, they are
classified into four categories. Households are then randomly selected from the above-identified strata. Thus, stratified random method of sampling has been used here for selection of households. However it is likely to be mentioned here that the information regarding characteristics of households are taken for both out-migrant and non-migrant households as well.

I.8.ii: Methodology

Correlation and Regression: For verification of the hypotheses and for evaluating the role of various variables two types of analyses are carried out, viz., zero order correlation matrix and stepwise regression in chapter II. They are indeed mutually complimentary and perhaps inseparable. Firstly it has been tried to test the hypothesis as an independent exercise. This has been done by using zero order correlation matrices with the help of correlation coefficient. The correlation coefficient has been calculated by using Karl Pearson’s method.

\[ r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left( \frac{\sum X^2}{N} \right) - \left( \frac{\sum X}{N} \right)^2} \sqrt{\left( \frac{\sum Y^2}{N} \right) - \left( \frac{\sum Y}{N} \right)^2}} \]

A ‘t’ test has been applied to test the statistical significance of correlation coefficient.

\[ t = r \sqrt{\frac{n-2}{1-r^2}} \]

Secondly in order to ascertain the relative importance of the variable, the technique of stepwise regression has been employed. Stepwise regression is a procedure for selecting one regression equation from several possible combinations of independent variables. Even though a set of variables has been selected because they are theoretically relevant, a
smaller subset of these variables may provide a satisfactory model of the process under examination.

\[ Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \ldots + \beta_k X_{ik} + E_i \]

**Chi-square:** The chi-square test is applied here to measure the effect of out-migration on out-migrating households. This test is one of the simplest and most widely used non-parametric tests in statistical work. This method is used to test the correspondence between certain observed and estimated frequencies. In the generalized notation, its formula is:

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]

Where \( O \) refers to the observed frequencies and \( E \) refers to the expected frequencies.

**Logistic Regression:** The logistic regression is one that specifies a functional relationship between a basically dichotomous dependent variable and categorical or metric scaled independent variables. In fact it is a method of multivariate analysis of the multiple regression model designed to deal with the situation when we have only the measurement of presence or absence, occurrence or non-occurrence of some factors. Logistic regression is concerned with modeling the odds of dependent variable and the parameters for logistic are most easily interpreted if they are expressed as odd ratios. The basic form of logistic function is:

\[ P = \frac{1}{1 + e^{-x}} \]

When numerator and denominator of the right side of the above equation are multiplied by \( e^x \), the logistic function can be expressed in the following manner:
\[ P = \frac{\exp(z)}{1 + \exp(z)} \]

Where \( z \) is the predictor variable and \( e \) is the base of natural logarithm, equal to 2.71828. Above equation is bivariate. If \( z \) is a linear function of a set of predictor variables then:

\[ Z = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k \]

This expression is substituted in the formula for logistic function in the above equation.

\[ P = \frac{1}{1 + e^{-(b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k)}} \]

In this analysis, both logistic regression coefficients and odd ratios are used. Odd ratio is the ratio of the probability of the event occurring to the probability of the event not occurring.

Odd Ratio = Probability of the event occurring / Probability of the event not occurring, denoted as:

\[ \log \frac{P}{1 - P} = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k + e \]

Where, \( P_i \) = Probability of the event occurring.

\( b_0 \) = Constant term representing the value of \( \log \) \( (P_i / 1-P_i) \) with the base line value of all values \( X_1 \) to \( X_n \) in the model.
$X_1$ to $X_k$ = Independent variables associated with the process of out-migration.

$B_1$ to $b_k$ = Unknown regression coefficients associated with the independent $X_1$ to $X_n$.

$E$ = Error term representing unobserved variables that influence dependent variable.

The quantity $P / (1 - P)$ is called the odds, hence the quantity in $P / (1 - P)$ is called the log odds or the logit of $P$.

The coefficients are estimated using the method of maximum likelihood. The predictor variables should be numeric on a scale. If a predictor variable is in a categorized form, it needs to be converted into dummy variables. Computer packages of SPSS for logistic regression have a provision of doing so and it is adequate to specify categorized variables as such and note the reference category. In such cases, the ratio term $\exp(B_k)$ for a particular category $k$ is the odd ratio i.e. the ratio of odds for the category $k$ to the odds for reference category.

I.9 Plan of the Study

This study deals with rural male out-migration of Bihar in general and Bhagalpur district in particular. The description of rural male out-migration is fundamentally based on secondary sources of data for Bihar in chapter II whereas the analysis of Bhagalpur district in term of rural male out-migration is mainly carried out on the basis of primary data for other chapters. The entire exercise has been carried out into the following manner.

Chapter I basically focusses on introduction, statement of the problem, objectives, hypotheses, introduction to study area, database, sample design & methodology and research design. In addition to the above, theories and literature of noted authors and scholars on it have been reviewed under the heading of theories of migration, determinants of out-migration, characteristics of out-migrants, impact of out-migration and out-migration from Bihar.

Chapter II reveals the scenario of spatial patterns and determinants of out-migration at district level in Bihar. It provides a brief description of out-migration from Bihar in a historical perspective. It also gives a brief account of internal male in-migration in Bihar. It further analyses distance and migration streams in terms of intra-district, inter-district, inter-state out-migration. Since the study is limited to rural male out-migration, different streams of out-migration have been described here only in the
context of rural to rural and rural to urban migration. Somehow intra-district and inter-district out-migration have been presented here on district level, whereas inter-state out-migration depicts picture for the state of Bihar as a whole due to non-availability of secondary sources of data on district level. It also deals with various aspects of rural development. It contains zero order correlation matrices and stepwise regression analysis of intra-district and inter-district out-migration with various variables of rural development.

Chapter III describes the demographic, social and economic profile of out-migrants of Bhagalpur district, which are based on primary data. Demographic profile has been studied under the heading of age structure and marital status whereas social profile has been analyzed under the title of educational attainment, size of household, caste and type of family. Lastly, economic profile has been examined under the topic of work category, occupation, sources of information about employment, income and size of landholding. In fact, all these characteristics of out-migrants have been investigated with the tool of distribution and specific rate of out-migration. Moreover some characteristics have exclusively been looked into with distribution of out-migration only. Some of the characteristics of out-migrants have also further been examined here with cross-tabulation in order to provide complete characteristics of out-migrants. It also compares the characteristics of out-migrants with resident population in order to find out out-migrant and non-migrant differences.

The first part of chapter IV deals with the regional patterns of rural male out-migration. Regional patterns of out-migration have been studied here under the broad heading of migration streams, distance, step migration, duration of stay at place of destination and duration of stay at home on return. In the second part of the chapter, the discussion is related to the magnitude of rural male out-migration for different sample villages of Bhagalpur district.

Chapter V attempts to examine the extent to which the out-migrants are maintaining their links with their native places through various visits and letter writing. An examination has been carried out to take into account the contribution of remittances sent by out-migrants to the total income of the household, composition of remittances and
the main uses of remittances. The quantum, locational patterns, determinants and future planning of return migration have also been analyzed here.

Chapter VI is a study into the causes of rural male out-migration and the relationship between rural male out-migration and various development variables by applying logistic analysis. Determinants of out-migration have further been examined here under caption of push and pull factors. The consequences of out-migration on the out-migrating and non-migrating households have also been analyzed by applying the method of chi-square.

Chapter VII summarizes the findings of the present study.

References


27. Ibid

28. Ibid


83. Soni, M.D. (1976), "Why is the Rate of Urbanization in India Slow" Seminar Paper, IIPS, Bombay.


92. Upton, M. (1967), "Agriculture in South Western Nigeria", Department of Agricultural Economics, University of Reading, Development Studies, No. 3.


