

**CHANGING DIMENSIONS OF RURAL-URBAN  
MIGRATION IN INDIA  
AFTER ECONOMIC REFORMS**

*Dissertation submitted to Jawaharlal Nehru University*

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*for the award of the degree of*

**MASTER OF PHILOSOPHY**

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**DECLARATION**


I, Arvind Kumar Pandey, hereby declare that the dissertation entitled "CHANGING DIMENSIONS OF RURAL-URBAN MIGRATION IN INDIA AFTER ECONOMIC REFORMS" submitted by me for the award of the degree of MASTER OF PHILOSOPHY is my bonafide work and that it has not been submitted so far in part or in full, for any degree or diploma of this university or any other university.

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BABUJI

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# CHAPTER 1

## INTRODUCTION

### **Introduction:**

Migration has been a significant process of social evolution since time immemorial. People's movement from one area to another is always guided by the specific needs of their time. Each movement provides an important network for the diffusion of ideas and informations, indicating the symptoms of social and economic change (Demko et. al, 1970). From hunting stage to post-modernization period, it is a common feature of population that people migrate from less developed area to more developed area in search of their fortune. In modern times, migration has become a universal phenomenon. Due to the expansion of transport and communication, it has become a part of worldwide process of urbanization and industrialization. In most countries, it has been observed that industrialization and economic development has been accompanied by large-scale movements of people from villages to towns, from towns to other towns and from one country to another country (Lusome and Bhagat, 2006).

In developing and developed countries migration is an important factor for social and economic change. Millions of people all over the world move out of their normal place of residence to seek their fortune elsewhere. If military oppressions or political oppressions were the major cause of exodus of people on various occasions in the past, it is by and large economic factors that induce people to migrate in modern period. However the exact circumstances under which people migrate from time to time and place to place vary considerably (Joseph, 1988). Migration is having far-reaching impact not only on the migrants but also on the society at large both in the place of origin and destination. Therefore migration has naturally become a lively topic for the serious studies and discussions.

From the demographic point of view, migration is one of the three basic components of population growth of any area, the other being fertility and mortality. But whereas both fertility and mortality operate within the biological framework, migration does not. It influences size, composition and distribution of population. More importantly, migration influences the social, political and economic life of the people not only at the place of

origin but also at the place of destination. It is a striking feature of the migration that while changes in the population size and structure caused by mortality and fertility are never drastic, migration may increase or decrease the size and structure of any population quite drastically at any point of time, especially when large number of people move into a particular area or move out of another (Bhinde and Kanitkar, 2010). Future estimation of the population redistribution also depends upon the proper understanding of the pattern of migration.

The three great socio-economic revolutions of the history of human race - the industrial revolution, the agrarian revolution and transport revolution – sparked off another revolution that is urban revolution. One of the most remarkable features of the second half of the twentieth century is the spectacular growth of the urban population in the developed and developing world. The past decade and a half has been especially considered to be a period of a progressive shift of the epicenter of urbanization from “the predominantly northern latitudes of developed countries to the southern ones of developing countries” and that “the mean latitude of global urban population has been steadily moving south (Mohan and Dasgupta, 2005).” Developing countries, in particular, have experienced rapid urbanization and the mushrooming of huge metropolises.

Higher urbanization is regarded as one of the indicators of development because it is an integral part of the process of industrialization and development. The process of development entails a massive shift of labour and other inputs from the sectors that are predominantly rural to the sectors that are predominantly urban (Modi, 2010). Therefore in the process of industrialization, modernization and development, developing countries are experiencing the mass movement of people from rural areas to urban areas. The urban and rural areas of these countries are becoming more closely linked socially, economically and politically.

India is the best example of the above phenomena. In rural areas of India, high man-land ratio, sluggish agricultural growth and limited development of rural non-farm sector raises the incidence of rural poverty, unemployment and underemployment. On the other hand, most of the high productive activities, better educational opportunities and medical services are located in the urban areas and rural–urban income differentials particularly for the poor and unemployed rural persons are enormous. All these are the leading causes

of rapid growth of rural to urban migration that boost the pace of urbanization in India. Thus rural to urban migration is playing an important role in the process of urbanization in India and because of its socio-economic, political, demographic, ecological and environmental implications. It has attracted the attention of academicians, policy planners and administrators in India. In this context, it would be an interesting task to explore the new dimensions in the process of rural to urban migration in India.

## **1.2 Statement of the Problem:**

India adopted a new economic policy in 1991 which opened the economy for export oriented growth, removal of government control and licensing, encouraging private sector participation to stimulate competition and to promote efficiency. Both proponents and opponents of the new economic policy believed that economic reforms would increase rural to urban migration. The proponents often argue that linking India to global economy would lead to massive inflow of foreign capital that would boost the Indian economy and create job opportunities. The whole process would accelerate the rural to urban migration (Lusome and Bhagat, 2006). However, the opposing view held that economic reforms would adversely affect village-based cottage industries and impoverish the rural population, thereby leading to increased rural to urban migration (Kundu 1997). Moreover, due to the expansion of trade, commerce and industry in urban areas after economic reforms the workforce has been shifted very rapidly from agriculture to industry and tertiary sectors that results a structural change. The increasing gap between rural and urban sectors in respect of employment opportunities, wages, education opportunities and better availability of transport and communication result in the rural to urban migration in India.

From the earlier studies (Kundu and Gupta, 1996; Singh, 1998) it is evident that internal migration as a percentage of total population has been declining up to 1991 census and while in recent studies (Bhagat and Lusome, 2006; Bhagat and Mohanty, 2009; Pairida and Madheswaran,2010) it has been found that internal migration is increasing after 1991. All these studies are based on the census data of internal migration up to 2001. It can be argued that analysis of internal migration based on 2001 census would not provide the exact picture of the impact of economic reforms on the trends and patterns of internal

migration in India. The cause is very clear that it is very short duration to analyze this kind of phenomenon.

In all streams of migration, Rural to Urban migration has an important share after Rural to Rural Stream, but the importance of Rural to Rural migration has declined over time for both sexes, therefore now Rural to Urban migration is emerging as the most important stream. The migration data of Census of India (on the basis of place of last residence) show that the growth rate of lifetime rural to urban migrants was 34.37 percent for male and 25.41 percent for female between 1991-2001, which was higher than rural to rural stream. Kundu (2007) analyzed the components of urban population growths and found that net rural to urban migration share a good proportion in urban population growth and this share is increasing from 18.7% (1961-71) to 21% (1991-2001) over time period. This shows that the study of rural to urban migration in India, which has a traditional social order and agriculture economy, is of paramount importance because this stream plays an important role not only in the process of urbanization but also in economic development.

In this context, the latest round of National Sample Survey (64<sup>th</sup>, 2007-08) provides the detail figures of internal migration in India and it would be an interesting task to observe the trends and regional patterns of rural to urban migration and compare it with the other streams of migration with the help of the three rounds of NSS (49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup>). It would also be an interesting task to know the socio-economic background of migrants and check the reasons of migration – whether they are economic or non-economic. The present study also aims to understand the relationship between rural to urban migration and economic development of India. Studies on rural to urban migration in India after economic reform period are very scarce and most of them cover this phenomenon only up to 2001. Therefore the present study will act as a bridge in the existing gap of studying the process of rural to urban migration in India after economic reform period.



### **1.3 Review of Literature:**

Migration is an area which permits multidisciplinary approaches in social sciences. This is the main cause that it has been discussed by the sociologists, geographers, anthropologist, psychologists and economists. They have discussed the demographic (age, sex, education, race, household size and composition of migrants), geographic (spatial pattern, direction and distribution of migrants across the space), psychological (decision to migrate, attraction of better amenities) and economic (occupation, wage-differentials, income) factors to explain the migration flows (Gill, 1998).

Although, the genesis of migration as a significant development can be traced to the closing days of the mercantilist era during the latter half of the 18<sup>th</sup> century but the systematic analysis of migration is of recent origin (Theodore and Schultz, 1978). In recent decades migration, especially rural to urban migration has become the interesting phenomenon for the social scientists. We can divide the literature related to rural to urban migration in to two broad categories:

Review of the theories and models related to rural to urban migration.

Review of the other empirical works related to rural to urban migration.

#### **1.3.1 Review of the Theories and Models related to Rural to Urban Migration:**

##### **Ravenstein's laws of Migration:**

The theorization of the process of rural to urban migration began in the 19<sup>th</sup> century. One of the earliest models of rural to urban migration has been formulated by *E. G. Ravenstein*. His two papers of 1885 and 1889 formed the starting point for both the empirical and theoretical works on migration that continue to be relevant even today. According to Ravenstein's laws of migration, migrants move from the area of low opportunity to the area of high opportunity. The choice of destination is regulated by distance. Migrants from rural areas often show a tendency to move first towards the nearby towns and then towards the larger cities: in other words, step-migration. Further, Ravenstein observes that each stream has a counter stream like stream of rural to urban

migration produces a counter stream of urban to rural migration, although the former tends to dominate the later (Oberai and Singh,1983).

In his laws of migration, he hypothesized that ‘the native of towns are less migratory than those of the rural parts of the country’(Ravenstein,1985) and ‘development of manufacturing industries and commerce increase the migration towards the centre of commerce and trade and it accelerates over time due to the increase in the means of locomotion’(Ravenstein,1989). He mentioned that among the different motive of migration, the inherent desire in men ‘to better themselves in material respects’ that means economic motive, is the most important in influencing the decision to migrate. Ravenstein’s basic laws have since been discussed, systematized and expanded by a number of research scholars and it has been found by the several empirical studies that some of his laws like the importance of economic motive in the decision to migrate, the negative influence of distance and the process of step-migration are still valid at least in the case of developing countries.

### **Reilly’s Gravity Model, Zipf’s Principal of least efforts, Stouffer’s Concept of Intervening Opportunities:**

After his work several attempts have been made in migration research to explain the specific population size and distance relationships. *W.J Reilly’s Gravity Model (1929)* and *G.K. Zipf’s Principal of least efforts (1946)* was one of them. Both models explain how the size of the population and distance between two places decide the magnitude of migration. But in present scenario, both models are not very relevant because with the development of transportation distance is not a big issue of migration. In this context *Stouffer’s concept of intervening opportunities (1940)* is better because it explains that the flow of migrants between two places is determined by opportunities at origin and destination and by intervening opportunities between the two.

### **Lee’s theory of Migration:**

An important theory related to the decision of migration came in 1964 when the famous sociologist *Everett Lee* gave the four factors (factors associated with the area of origin and destination, Intervening obstacles and personal factors) which affect the decision to

migrate and process of migration. On the basis of Ravenstein's laws of migration, Lee developed 'a general schema into which a variety of spatial movement can be placed' (Lee, 1966). He divided the forces exerting an influence on migrant perceptions into "pluses" and "minuses". The former are pull factors attracting migrants to destination areas in the expectation of better fortune while the latter are push factors tending to force migrants to leave the origin areas. Lee hypothesized that for the movement of people, the attraction of destination must be great enough to outweigh the advantage of staying and to overcome any intervening obstacles such as distance, cost of relocation and disruption of established pattern of life. Personal factors also affect the decision to migrate. Using this simple schema as a framework, he formulates a number of propositions with respect to the volume of migration, stream and counter-stream, and the characteristics of migrants. Lee's theory and hypotheses help to restore an analytical emphasis in migration research; his theoretical framework has since been used extensively to investigate the spatial, temporal, and causal factors in migration (Lewis, 1982).

### **L-F-R model of Rural to Urban Migration:**

The first comprehensive economic model of development related to the process of rural to urban labour migration was developed by *W.A. Lewis (1954)* and later extended by *John Fei and Gustav Ranis (1961)*. The combined model is now known as the Lewis-Fei-Ranis model or L-F-R model. This model became the general theory of the development process in "labour surplus" third world nations during most of the late 1950s and 1960s. This model is based on the concept of dual economy, comprising a subsistence agriculture sector (rural) characterized by unemployment, underemployment and surplus labour and a high productivity modern industrial sector (urban) characterized by full employment where capitalists reinvest the full amount of their profit.

In the subsistence sector, marginal productivity of labour is zero or very low and the wages paid to the workers are equal to their cost of subsistence, so wage rate exceeds the marginal products. On the contrary, wage rates in the modern sector are much higher because of high productivity oriented activities or under the pressure of labour union. With such differences in wage rates, migration occurs from the subsistence to industrial sectors. This in turn increases the industrial production and profits as well as the

possibilities of reinvestment, which in turn increases the demand of labour from the subsistence sector. This process will continue as long as surplus labour exists in rural areas and as long as this wage differential exists (Oberai and Bilsbarrow, 1984).

Although the dual economy theory explains convincingly the causes of rural-to-urban migration as a result of wage rate differences, many other researchers have found it unsatisfactory because of number of shortcomings (Todaro, 1976; Dasgupta, 1979; Dubey et al., 2004). Firstly, although the rural-urban wage differential and rural unemployment are important reasons for the rural to urban migration but it is not induced solely by these reasons. There are many other reasons that force people to relocate. Secondly, many people believe that the assumptions of zero marginal productivity and labour surplus in rural areas are not very realistic. Thirdly, the rate of the growth of modern industrial sectors has been too low in many developing countries to permit such development as formulated by L-F-R model. All of these points indicate that while the neo-classical theory has explained beautifully the causes for a person to move from a rural to an urban area, it has oversimplified the causes of the migration<sup>1</sup>.

Hence it seems that L-F-R model has the virtue of being simple, attractive and rough conformity with the historical experience of economic growth in the west but it has some characteristics ,noted above which are at variance with the realities of development processes and rural to urban migration in many third world countries (Todaro,1976).

### **Sjaastad's Human Capital Approach to study the Rural to Urban Migration:**

A new approach in the study of migration was developed by the *Sjaastad (1962)* which is known as human capital approach or human investment theory. This theory is different from the other theories of migration because it concentrates on the individuals/family as a subject of migration. Sjaastad attempts to explain the individual's decision to migrate as an investment decision in terms of expected costs and returns distributed over time. The returns are divided into money and non-money components.

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<sup>1</sup> Loi, Cu Chi; 'Rural to Urban Migration in Vietnam', downloaded from website [http:// www.ide.go.jp/](http://www.ide.go.jp/) dated 21.03.2011

The non–money returns include the changes in “*psychic benefits*” as a result of locational preferences. Similarly costs include both money and non-money costs, such as costs of transportation, disposal of movable and immovable property necessitated by a shift of residence, wages foregone while in transit and retraining for a new job, if necessary. There are psychic costs too like leaving familiar environment, giving up own language and culture, adopting new habits and social customs and so on. Sjaastad’s approach assumes that in deciding to move, migrants tend to maximize their net real life-span income and they have at least a rough idea of what their life-span income streams would be in the present place of residence as well as in the destination area and of the costs involved in migration.

## **F. Todaro’s Model of Migration:**

One of the most acknowledged frameworks for understanding the driving forces behind the rural to urban migration in developing countries is the model developed by *Michael P. Todaro*. During 1970s, Todaro developed his model through a number of papers and a monograph. Todaro’s initiative was stimulated by his observation that “throughout the developing world, rates of rural–urban migration continue to exceed the rates of job creation and to surpass greatly the capacity of both industry and urban social services to absorb this labor effectively”. The basic Todaro’s model assumes that migration is based primarily on privately rational calculations for the individual migrants despite the existence of high urban unemployment. He postulates that migration proceeds in response to rural-urban differences in *expected rather than actual earnings*.

Expected earnings are measured by “*the difference in real income between rural and urban job opportunities*” and “*the probabilities of a new migrant obtaining an urban job*” (Todaro, 1976). He summarized the essential features of his basic model which are as following:

Migration is stimulated primarily by rational economic considerations of relative benefits and costs, mostly financial but also psychological.

The decision to migrate depends on “expected” rather than actual urban rural real wage differentials where the “expected” differential is determined by the interaction of two

variables, the actual rural-urban wage differential and the probability of successfully obtaining employment in the urban modern sector.

The probability of obtaining an urban job is inversely related to the urban unemployment rate.

Migration rate 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 wage differentials. High rates of urban unemployment are therefore inevitable outcomes of the serious imbalances of economic opportunities between urban and rural areas of most underdeveloped countries (Todaro, 1985).

From the above description we can see that Todaro's model is both an extension of the human capital approach of Sjaastad and an attempt to accommodate the more unrealistic assumption of the L-F-R model as regard third world cities.

Later Todaro extended his basic framework with his colleague John Harris and construct a two sector model of migration and unemployment which made it possible to give explicit attention to the impact of migration on rural income, urban and rural output and total social welfare. The main idea of the *Harris-Todaro model (1970)* is that labour migration in underdeveloped countries is due to rural-urban differences in average expected wages rather than actual wages; they adopt the same hypothesis of the basic model. The migrants consider the various opportunities of employment available to them in rural and urban sectors and choose the one that maximizes their expected wages from migration. The minimum urban wage is substantially higher than the rural wage. If more employment opportunities are created in the urban sector at the minimum wage, the expected wage will rise and rural to urban migration will increase. This model mentions that migrants compare their expected income for a given time horizon in the urban sector with their prevailing average rural income and migrate if the former is more than the later.

Thus migration in the Harris-Todaro model is viewed as the wage or income gap between the urban and the rural sectors, but it is found in many developing countries that all migrants cannot be absorbed in the urban sector at high wages. Many migrants fail to find a job and get employment in the informal sectors at wages which are even lower than in the rural sector. Thus they join the queue of the underemployed or disguised

unemployment in the urban sector (Jhingan et al., 2003). Though the Todaro and Harris-Todaro model has been empirically tested in number of developing countries but it suffers from lot of weaknesses in many of its assumptions like, potential migrants are homogeneous in respect of skill and attitudes, potential migrants have equal information about urban labour market and have equal access to urban jobs and so on.

The above neo-classical theories (Lewis, Fei and Ranis, Todaro, Harris, Sjaastad) have lot of propositions and assumptions. These theories give a lot of emphasis on the rural-urban wage differentials in explaining the process of rural to urban migration and do not consider the non-economic factors. It has been found by the several empirical studies that existence of rural-urban wage differential is caused by the disparities between rural and urban areas which are strongly associated with the inequitable allocation of resources. Therefore for the better understanding of the process of rural to urban migration, it is necessary to understand the macro-economic and institutional factors that generate rural-urban differentials and it is also required to understand the socio-cultural factors under which a person or a household take the decision to migrate.

### **G. New Economics of Labour Migration (NELM):**

The neoclassical view of migration has been challenged by a “*new economics of migration*” which posits that migration is less determined by isolated individuals than by other social units, especially families and households. It is also determined by the larger social aggregates such as communities where social norms regarding migration behavior may be deeply embedded. This approach is pioneered by *Oded Stark* in a large quality of writings. In contrast to classical and perfect market neo-classical models, the “new economics of labour migration” suggests that the household is appropriate unit for the evaluation of migration decisions (Stark, 1993) and family members are assumed to act collectively to maximize expected income and also to loosen constraints associated with missing credit, insurance, and other markets (Litchfield and Waddington, 2003). Evidence suggests that after migration, members of the family combine and share their incomes. Such pooling is regarded as a form of insurance against uncertain income flows from specific markets to smooth that family consumption growth path (Ghatak et al., 1996).

Thus in the new economics of labour migration (NELM), migration is the outcome of a family or group decision-making process induced by risk considerations and uncertainty.

## **H. System Approach to the study of Rural to Urban Migration:**

A system approach to the study of rural to urban migration has been developed by A. *Mabogunje*. He developed this system theory to explain the rural to urban migration in West Africa. This approach is concerned not only with why people migrate but also with all the implications and ramifications of the process of rural to urban migration. In this theory Mabogunje explains that rural to urban migration is not a simple uni-directional, push-pull and cause and effect movement but it is a circular, independent and self modifying system in which several interrelated linkages has been found. His rural to urban migration system has four basic elements; (I) a potential migrant who is encouraged to leave the rural area by stimuli from the environment; (II) various institutions or control subsystems, which determine the level of flow within the system. In the rural to urban migration the two most important subsystems are the rural and urban control systems. Rural sub-control system involve the family/household relationship and reallocation of task ( work, family responsibilities) which can act both in a positive and negative way in determining the volume of migration. Urban sub-control systems include social networks, neighborhoods, means of accessing work, living space and the nature of work (informal labour markets, methods of recruitments etc.); (III) an adjustment mechanism (social, economic, political forces) which play a vital role in the process of migrant's transformation and lastly (IV) the feedback, which encourage the system to produce more migration or to decline it (Mabogunje, 1970). Although Mabogunje designed his model to explain the process of rural to urban migration in West Africa and it provides an additional insight in the process of rural to urban migration but the main drawback of his model is that he failed to show the methods of measuring the inter-relationship and interaction between the elements of his system (Chatterjee, 1991).

## **I. Mobility Transition Model of the Migration:**

Another model which is known as the *hypothesis of "mobility transition"* has been proposed by *Wilbur Zelinsky*. In this model, Zelinsky theorizes that mobility generally



increase with modernization of society. His model consists five phases to describe the relation between mobility and the level of development of the society. First, there is the *pre modern transitional society* with limited circular movement. Second comes the *early transition society* with massive migration from countryside to cities. This is succeeded by the *late transition society* with slackening rural to urban migration but remain at high level and increasing further circular movements. Fourthly, there is *the advance society*, where rural to urban movements decrease, urban to urban movements increase and societies are increasingly urbanized and lastly *the future super advance society* in which Zelinsky hypothesized a decline in the level of residential migration (Zelinsky, 1971). Zelinsky's approach was innovative, because it conceived various functionally related forms of migration within a broader spatio-temporal development perspective and it also differentiates between various kinds of labour mobility, internal and international, long-term as well as circular movement, and proposes to integrate them within one single analytical framework (De Hass, 2008). His model with its five phases is useful but needs to be modified because it is built on the experiences of the developed world and do not match with the experiences of developing world (Skeldon, 1990).

It has been found by the above review that different migration theories and models of migration have stressed on different aspects of rural to urban migration either economic (wages, opportunities, unemployment) or social (social status and social mobility) and environmental (residential satisfaction) etc. Despite the different approaches to the study of rural to urban migration, it seems to be a common consensus among all the research scholars that people or households migrate from rural areas to urban areas in search of better fortune and to improve their conditions.

### **1.3.2 Review of the Other Empirical Works related to Rural to Urban Migration:**

A lot of work related to rural to urban migration has been done by the Indian scholars. The survey of the relevant literature can be done in the following way from which we can easily identify the existing gaps among the literatures related to rural to urban migration in Indian context:

## **Trends and Patterns of Rural to Urban Migration in India:**

Kingsley Davis (1951) was one of the first scholar who made a systematic study of population mobility in the Indian subcontinent through census statistics. In his pioneering work “The Population of India and Pakistan”, he observed that the population of the Indian subcontinent was relatively immobile, although there was no restriction on internal movement in either the pre-colonial or the post-colonial period. He attributed this immobility to prevalence of caste system, joint families, practice of early marriage, diversity of language and culture, lack of education and predominance of agriculture in the economy. Zachariah (1964) made a detailed study of migration in the Indian subcontinent during 1901-1931. In his study, he examined the magnitude of migration from one province to another and concluded that the volume of migration, compared to the experience of western countries was very small. He supported Davis’ view that the population of Indian subcontinent was relatively immobile and strongly attached with its native locale. This view is later supported by the Gosal and Krishan (1975) and Majumdar and Majumdar (1978).

Sundaram (1983) in his study, which was based on the NSS data of 28<sup>th</sup> round on the internal migration in India (1973-74), examined the applicability and relevance of Todaro’s model of rural to urban migration in Indian context. He found that rural to urban migration in India is not responded by expected wage differentials. He built up his argument on the basis of useful observations. In his study, he found a negligible declining of rural job seekers to urban India during 1963-64 and 1973-74 inspite of sizeable and non-declining expected wage-differentials.

This perspective was later extended by Kundu (1986), Singh (1998), Kundu and Gupta (2001) and Kundu and Sarangi (2007). Kundu (1986) in his study highlights the slowing down of the interstate mobility in India, especially for the male population. He says that instate inequality in various socio-economic dimensions of development like per capita income and agricultural productivity (labour) are noted to be on the rise and on the view of slowing down of interstate mobility, it is an alarming situation. The decreasing mobility of both the rural as well as urban population poses the major challenges for the development strategy being followed in India and the development perspective for the twenty-first century. Later Kundu with Shalini Gupta (2001) tries to analyze that whether

regional disparity in India has gone down with economic growth over the year and is it affecting the population mobility in India. This study is based on the census data of migrants from 1961 to 1981 and only male migrants have been considered in this study since female mobility in India is attributed largely to marriage and joining of other social factors. The results of this study show that indeed with economic development, rural to urban migration has gone down for male.

A totally different view has been found by some studies (Cassen, 1978; Srivastava, 1998; Bhagat and Lusome, 2006). Cassen (1978) has argued in his study that “India is a country of tremendous movement; migration is constantly in progress from one rural area to another, from one urban area to another, from rural to urban and vice-versa.” Later Srivastava (1998) in his study related to labour migration, points out the main reason behind the decline of rural to urban migration in India. He says that although the recent trends in population mobility indicate decline in the rates of migration but it is mainly because the main sources of data on migration, the Census and the NSS, underestimate the labour mobility. They have provided the low estimate of labour circulation and commuting. In his study, he says that a detailed comparison of the internal male migration streams between 1981 and 1991 shows that against the background of decline in overall migration rate, the share of interstate and rural to urban male migrants has increased between 1981 and 1991.

Srivastava and Sasikumar (2003) in their recent work show that recent evidence based on NSS figures for 1992–1993 and 1999–2000 which is indirectly supported by the census, suggests an increase in migration rates from 24.7% to 26.6% over that period. This evidence suggests the proportion of migrants of both sexes, in both rural and urban areas, increased during the last decade of the 20th century.

Bhagat and Lusome (2006) support the above results and extend it by analyzing the place of last residence data of migrants from 1971 to 2001. In this study, they find that percentage of lifetime internal migrants in India show a consistent decline from 1971 to 1991 but in the last decade (1991-2001), it has increased in male migrants as well as in females. Among all streams of migration, there has been a substantial increase in the proportion of rural-to-urban migrants over time in all three distance categories. Therefore from the above studies, the two different opinions have been found. The proponent thinks

that rural to urban migration in India is increasing while the opponent thinks in opposite way.

The spatial patterns of migration in India always show that people migrate from low developed states to more developed states. Sivamurthy and Khadi (1983) give an analysis of in and out migration for the different states of India and it has been found in it that high in-migration is positively associated with high level of urbanization, high per capita domestic product and low share of primary sector in state's economy and vice-versa.

Later, Singh (1998) presents a detail description of spatial pattern of migration in India. He says that people of north-central states of Uttar Pradesh, Bihar and Madhya Pradesh migrate towards West Bengal and Assam in the east, Delhi, Punjab and Haryana in the west and Maharashtra in the south. In the south the state of Karnataka with its recent industrial developments in and around Bangalore, is an important target for the migrants of densely populated rural areas of Kerala, Tamilnadu and Andhra Pradesh. Since 19<sup>th</sup> century, the states of Uttar Pradesh, Bihar and Kerala have been out-migrating states while West Bengal, Assam and Maharashtra have been the main target for the migrants. Among the metropolises Mumbai, Kolkata, Chennai, Delhi, Hyderabad, Ahmadabad, Bangalore, Pune and Kanpur have been the most important destinations for the migrants of both rural and urban area. Mukherji (2006) says that polarized urban-economic development is the main cause of the crowding of migrants towards these metropolitans. In most of the metropolitans, bulk of the migrants comes from rural areas and in these metropolises, volume of interstate migrants exceeds from volume of intra-state migrants. In a recent study, Bhagat and Mohanty (2009) examined the census data and found that in India, large net outflow is only from two states Uttar Pradesh and Bihar. Uttar Pradesh and Bihar experienced a net loss of 2.7 million people and 1.7 million people, consequently during 1991-2001 and most of the migrants from these states migrated to Maharashtra, Delhi, Haryana, Punjab, Gujarat and Madhya Pradesh. It can be easily observed that more urbanized states like Maharashtra, Gujarat and Punjab are attracting a large number of migrants who are coming from relatively low urbanized states.

## **Differentials and Determinants of Rural to Urban Migration in India:**

The differential of rural to urban migration is an interesting area of research but it can be easily observed that in India, it has remained one of the most neglected areas of research. Some of the existing literatures are following:

### **B.1 Literature Survey of the differentials of Rural to Urban Migration:**

#### **B.1.1 Age Differentials:**

One of the first studies related to the differentials of migration has been done by Zachariah (1968). It has been found in this study that migrants in Greater Bombay formed a selected group with respect to age, sex, marital status and family status. There was excess of adolescent and young adults aged 20-35 among migrants population as compared to non-migrants. Narain (1972) in his study related to characteristics of out-migrants in Southern Maharashtra in 1965 found that about 68 percent male migrants were in 15-34 years of age group at the time of migration. A study by Oberai and Singh (1981) in Ludhiana district of Punjab supported the age-selectivity of rural to urban migrants. Kamble (1982) in his study which is based on the census data of the 1961-71 found that characteristics of migrants in Chennai (that time Madras) show that overwhelming majority of male migrants are in younger age-groups. Yadava (1989) presents another study, which was based on a sample survey of 24 villages of Varanasi, Uttar Pradesh. The results of this study show that the average age of the male migrants was about 27 years.

A recent study by Bhagat and Lusome (2004) supports the above studies. They examined the association of workforce participation and migration in the Himalayan states and found that more than three-fourth of the migrants are in working age-groups (15-59). Therefore it can be easily identified that age-selectivity has been found in the process of rural to urban migration in India.

#### **B.1.2 Sex Differentials:**

Male-Female differential in the rural to urban migration is another interesting area of research. In India it has been found by various studies that male generally migrates for the economic reasons while female migrates because of marriage and other social causes. Bulsara (1964) in his study which was based on the survey of eight cities Baroda, Hubli,

Hyderabad, Sikanderabad, Jamshedpur, Kanpur, Poona, Gorakhpur, Lucknow and Surat found that in contrast to the dominance of females in rural to rural migration, there is a dominance of male migrants in rural to urban streams. This is not very much unexpected in Indian society where women are discouraged from moving alone from a village to town for the purpose of employment. This study shows that out-migration of females from village to town takes place either owing to marriage or owing to their dependence on the principal breadwinner of the family.

Zachariah (1968) analyzed the 1961 census data on migration to Greater Bombay and found that there were 552 female migrants for every 1000 male migrants. He found in his study that rural to urban migration in India, unlike in western countries, is highly dominated by male migrants. Premi (1980) presents the female migration in India based on the census data of 1961 and 1971. In his study he found that the number of female migrants is more than double that of male migrants but their migration is largely limited to the rural to rural stream within the district of enumeration. As the distance of migration increased, the sex ratio falls sharply and in large distance migration, rural to urban and urban to urban stream is highly dominated by male migrants.

In recent studies, it has been found that the proportion of female in rural to urban migration is increasing. Neetha (2004) in her study which is related to the female domestic workers in Delhi found that domestic service in Delhi seems to have become a part of the division of labour in which women from certain areas or regions with specific socio-economic background are crowding into this activity. According to her the case of women domestics worker is a classic example of the centrality of women in the rural to urban migration process and now women are not only taking part in the employment related migration but they are also providing a social networking for the other women from their origin. Therefore she argues that a re-examination of the validity of some of the widely accepted centric analysis in the literature on rural to urban migration is needed.

Shanthi (2006) supports the above study by analyzing the 55<sup>th</sup> round of NSS data. In her study she concludes that micro level case studies indicate high levels of rural urban migration among females for reasons of employment. Secondary data analysis though indicative of this trend, does not help us to arrive at the magnitude of such migration.

Moreover, unlike in earlier years where male selective migration was predominant, the latest trend is one of family migration where both the male and female migrate. Therefore it is clear from the above studies that sex selectivity has been found in the process of rural to urban migration in India.

### **B.1.3 Educational Status:**

The process of rural to urban migration is highly associated with the level of education of the migrant population because education acts as a strong catalyst in this process. Many scholars found in their studies that probability to migrate to urban area is high among the educated people than the others. In India it can be easily observed through existing literature that two types of migrants are coming to the urban centres, first who have higher education and second who are illiterate. Connell et al. (1976) have shown a U-shaped relationship between the level of education and migration in India, which means that migrants are selected mostly from the highly educated and illiterate groups of the population later Lipton (1980) generalized this for all third world countries.

Singh (1986) in his study examines the relationship between level of education and migration in the three states West Bengal, Kerala and Bihar. He found that the level of education among the migrants who move towards the cities of Bihar, West Bengal and Kerala is much higher than that of the non-migrants urban population. Among these three states, Kerala has recorded a higher level of educated migrants than West Bengal and Bihar. In this study, a male-female difference is also found; female migrants show a lower level of education than their male counterparts. Khan (1986) also find in her study which was based on the survey of 20 villages of Uttar Pradesh that highly educated people in rural area faces the difficulty in finding the position corresponding to their level of education and skill and thus they are more prone to migrate to cities.

Neetha (2004) in her recent study divides the female domestic migrants in Delhi into two category, first part-time domestic workers or live-out domestic workers and second live-in domestic workers who get the accommodation from the employers. In her study, the educational status of live-out domestics shows that a majority of them are illiterate (55.7%), while live-in workers are comparatively better placed with around 47% having education up to middle school. Therefore she suggests that now educated

women migrants also need to be seen as part of the migration systems and subsystems, with numerous roles and functions.

In a very recent study, Bhagat (2009) analyzed the census data of 2001 and found that the level of education is higher among the rural to urban migrants than the non-migrants rural population. Kundu and Sarangi (2007) gives a very important reason to explain this kind of phenomenon that highly educated people easily establish the linkages with the urban economy because they have strong socio-economic channels and in comparison to low educated person, they easily avail the opportunity offered through the rural to urban migration.

#### **B.1.4 Social and Economic Status:**

In India, it has been found that social and economic status plays a decisive role in the process of migration. Gist (1954) in his study found a predominance of Brahmins over the scheduled castes and the backward castes in migrant population of Mysore and Bangalore. He concludes that the presence of social selection in migration to cities is possible mainly because of the differences in the level of formal education. Connell et al. (1976) have reported from Gujarat villages, that high castes showed a greater rate of individual migrants than the other caste of the villagers. He has brought to light that the people of higher castes move out for higher education and for professional jobs. Yadava (1989) in his study related to Varanasi district, Uttar Pradesh found that in comparison to scheduled caste (10%) and Muslim migrants (6%), upper and middle class have greater percentage in rural to urban migration, 29% and 26 % respectively.

Some of the recent studies also support the above scenario. Panini (1996) documents the phenomenon of the caste clustering in the urban areas including unorganized sectors and found that higher castes predominate in many modern occupations in the industrial sectors. He concludes that caste may operate as a surrogate recruitment network for the employers in the city. In a very recent study Dubey, Jones and Kunal (2004) analyzed the data of the 55<sup>th</sup> round of NSS and found that rural to urban migration in India is still caste selective, dominated by the upper caste of social hierarchy.

Economic status is also an important factor in the process of rural to urban migration. In India it has been found by several studies that rich are more migratory than



the poor. Sharma (1977) in his study of a village in the Himalayan foothills has revealed that most rural-urban migrants are from rich families. Recognizing the importance of economic factors in migration he observed that economic necessity may force the villagers to leave the land for the city, but it is not necessarily the most needy who migrate. Oberai and Singh (1983) found in their study that it is not the poor villagers who move out from rural to urban area but who has some education and capital, will migrate more, in Ludhiana district of Punjab. A recent study Dubey et al. (2004) supports the above study, their finding suggest that the poorer households from the surplus labour regions do not seem to migrate to the urban areas in the same extent as the richer household migrate. Bhagat (2009) argues in his study which is based on the 55<sup>th</sup> round of NSS that it is not the poor and disadvantaged people who are migrating more, but more migrants belong to better off sections of Indian society.

## **B.2 Literature Survey of the determinants of Rural to Urban Migration:**

Gopal and Krishnan (1975) found in their study that high outflows of migrants have been seen from those regions where per capita agricultural productivity is low due to the high population density, small size agricultural holdings and overdependence on the agriculture. They cited the example of areas like Ganga Plain in Uttar Pradesh and North Bihar, North-Eastern Rajasthan and the coastal areas of Orissa, Tamilnadu and Konkan.

Oberai and Singh (1983) in their study of Ludhiana district of Punjab, describe the main determinants of rural to urban migration. They argue that although the pressure of population resulting in high man-land ratio has been widely hypothesized as one of the important causes of rural unemployment, poverty and rural to urban migration but the low rates of investment in the agriculture, fragmentation of land ownership and the inequalities in the distribution of land and other productive assets in rural areas are also seem to be the equally important causes of rural to urban migration. They argue that the higher educational opportunities, medical facilities, cultural and entertainment facilities are available at very low or modest scale on the village areas. In comparison to urban areas, these facilities attract the rural population to migrate to the urban areas.

Mishra (1998) analyzed the nine migration prone blocks covering the 40 villages of Ganjam and Puri district of Orissa and found that expectation of the higher amount of

income and more labour demand and prospect of employment in urban area are the major cause of rural to urban migration in these blocks. He also found in his study that lack of the various types of professional and vocational colleges and better medical facilities in rural areas pushed the rural migrants towards the cities. In a recent study, Modi (2010) argues that in India 70% of rural population earn their livelihood from the agriculture and its related activities but because of population pressure, this sector is now overcrowded and the problem of disguised employment has become very acute. She argues that frequent droughts, lack of proper irrigation facilities, high cost of cultivation, stagnant productivity and fluctuations in prices of agricultural products are the main factors responsible for converting agriculture as a non-profitable sector, therefore in this “distress condition” rural labourers and farmers are compelled to move from villages to urban areas and cities in search of employment and better livelihood.

From the above studies it is clear that the sluggish agricultural growth, high population pressure on the land (high man-land ratio) in rural areas, limited development of the rural non-farm sectors, incidence of rural poverty, unemployment and underemployment and rural- urban wage differentials are the main causes of rural to urban migration. Except these factors in rural areas, growth of high productive activities in urban areas, location of most of the higher education institutions and health facilities in urban areas are the other factors that attract the rural person towards the urban areas.

### **Literature Survey of Rural to Urban Migration and Economic Development:**

Several studies by Indian scholars indicate that there is a positive relation between the rural to urban migration and economic development. Kailash Mahto (1984) examines the relationship between the male rural to urban migrants and the level of economic developments of three states Bihar, Orissa and West Bengal. On the basis of birth place data of male migrants he found that spatial patterns of male migration in these three states are positively correlated with the level of economic developments. Sourabh Ghosh (2003) analyzed the three rounds of NSS data (38, 43 and 55) and the indicators of economic development like per capita income, infrastructure, percentage of employment and poverty. He has done a correlation analysis and found that rural to urban migration is positively correlated with the per capita income and composite index of various

infrastructures facilities while it is negatively correlated with the poverty. In the case of employment, migration is negatively related with the employment in agriculture sector but it is positively related with the employment in manufacturing sector. He argues that negative relationship between migration and employment in agriculture sector shows that in recent time employment in agriculture sector is not attracting the migrants while on the opposite side migrants are going to manufacturing sectors. It is the main reason that migrants are going to those states where growth of manufacturing sectors are high. From these studies it can be easily identified that migration is highly associated with the levels of development.

#### **1.4 Conceptual Framework:**

Through the detail review of the models and theories related to the rural to urban migration and keeping in the view of the findings of empirical works related to rural to urban migration in India, a conceptual framework has been framed which is appropriate for the present study. The skeleton of the conceptual framework related to the process of rural to urban migration in India is set out in a diagrammatic form in figure 1.1. The detail descriptions of this diagram are as follows:

**Determinants of Rural to Urban Migration:** By the above literature survey it has been found that there are some factors in rural and urban area which are responsible for the rural to urban migration. In rural area, high population pressure on land, small and decreasing land holding sizes, persistent and stagnant agriculture economy, limited development in rural non-farm sectors, high unemployment and underemployment situations and poverty are the main factors which promote the rural population to migrate to cities. In opposite to these factors, there are some attracting factors in cities like employment opportunities in formal and informal urban economy, availability of high education and medical facilities etc. which attract the migrants towards the urban areas.

**Migration Networks and Information Sources:** In the process of rural to urban migration village based networks help the new villagers to provide the information related to jobs opportunities, education facilities and medical services. Those rural migrants who are already residing in urban areas, they help the other villagers to migrate in urban areas. The technological development of information sources like television,

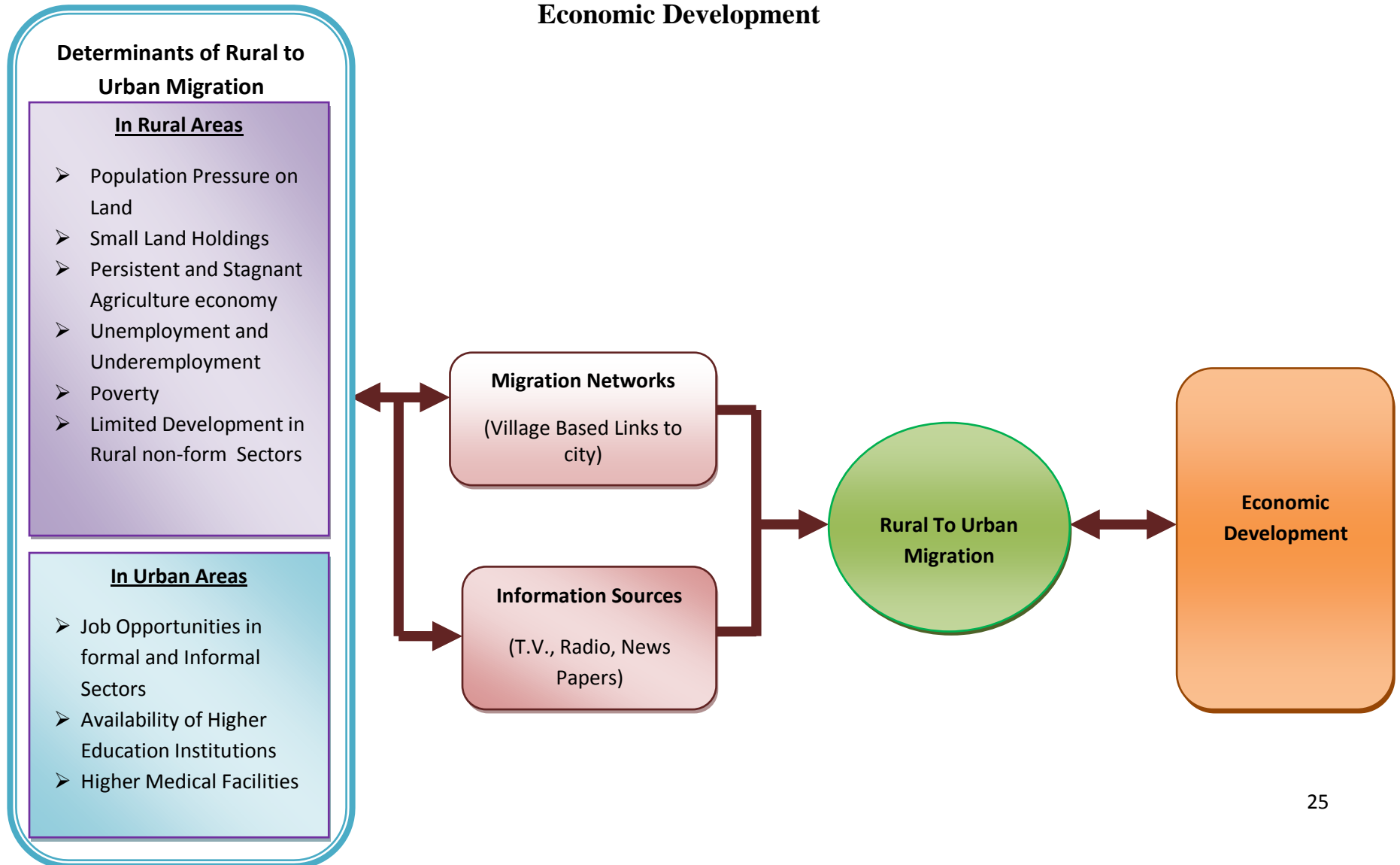
radio, news paper and now mobile phones are very helpful to inform the rural people about the bright side of the cities.

**Process of Rural to Urban Migration:** Through the above factors the process of rural to urban migration in India is increasing.

**Rural to Urban Migration and Economic Development:** In India, rural to urban migration is highly associated with the economic developments. Generally it has been found by the literature that people from backward region migrate towards the high developed and economically prosperous regions in search of their fortune. In the Indian context, the interrelationship between rural to urban migration and economic development is very high and it is increasing over the time because of the increasing regional disparities.

Figure 1.1

**Schematic Framework for Analyzing the Process of Rural to Urban Migration in India and its linkages with Economic Development**



### **1.5 Objectives of the Study:**

The main objective of this study is to analyze the overall process of rural to urban migration in India after economic reform period with a number of different and complementary perspectives so that this study may add the knowledge base for the proper understanding of the process of rural to urban migration in India. In particular, this study will be done with the following objectives:

- To study the trends and regional patterns of rural to urban migration and compare it with other streams of migration.
- To assess the socio-economic and demographic characteristics of rural to urban migrants.
- To analyze the reasons of rural to urban migration whether they are economic or non-economic.
- To work out the relationship between rural to urban migration and economic development and discuss their implications.

### **1.6 Research Questions:**

In the concern of above objectives following research questions have been raised which will be answered by the present study:

- How the rural to urban migration in India vary over time and space and what are the changes that have occurred in its regional dimensions after economic reform period?
- What is the male-female differentials in rural to urban migration stream in terms of socio-demographic and economic parameters like age, marital status, social groups, educational attainments and Monthly Per Capita Consumption Expenditure (henceforth, MPCE) ?
- What are the main reasons of rural to urban migration, whether the economic reasons dominate or the non-economic ones?
- What is the relationship between the process of rural to urban migration and economic development?

## **1.7 Data Base:**

The two major secondary data sources for the study of the migration in India with its various aspects are Census of India and National Sample Survey Organization. Census of India is the single largest data source on the volume and characteristics of the migrants people in India. It provides the data of migration on the base of Place of Birth (POB) and Place of Last Residence (POLR). The second major source of migration data is National Sample Survey; it conducts a number of surveys to collect the data on migration as part of its employment and unemployment enquiries. In NSS surveys, those movements which resulted in change of the usual place of residence (UPR) of the individuals is treated as migration and a household member, whose last usual place of residence (UPR) is different from the present place of enumeration is considered as a migrant. In NSS surveys the usual place of residence (UPR) of a person is defined as a place (village/town) where the person stayed continuously for a period of six months or more. The present study is based on the unit level data of NSS 49<sup>th</sup> round (January to June, 1993), 55<sup>th</sup> round (July 1999-June 2000) and 64<sup>th</sup> round (July 2007-June 2008). All three rounds has a migration schedule in which detail information of migrants by different categories like rural/urban, male/female, reasons of migration, different streams of migration, migrants by different social groups and Monthly per capita income expenditures classes have been given. As far as development indicators are concerned, data has been collected from the reports of Ministry of Road, Transports and Highway, New Delhi ; Ministry of Human Resource Development, New Delhi; Centre for Monitoring of Indian Economy, Mumbai; Ministry of Statistics and Programme Implementations, New Delhi; Infrastructure Statistics-2010 (Central Statistics Office, New Delhi) ; Basic Statistical Returns of Scheduled Commercial Banks in India (Reserve Bank of India, Mumbai); Health Information of India, (Central Bureau of Health Intelligence, Directorate General of Health Services, New Delhi) and reports of Annual Surveys of Industries (Central Statistics Office, New Delhi).

## 1.8 Methodology:

In the present study, unit level data of 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> round is processed and converted into SPSS format. Proper weightages are given for each round and the estimates are verified with the publishing reports. The study is strictly concentrated to urban migrants i.e. those migrants who found urban places as their destination area and further this study is focusing only on the migrants of rural to urban migration stream. The analysis of rural to urban migration and its various aspects has been undertaken for both genders.

For India as a whole, seventeen major states are selected which have a large sample. These states are Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Kerala, Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Gujarat, Punjab, Haryana, Himachal Pradesh, Delhi, Assam, West Bengal and Orissa. For the comparative analysis of all the three time period, the figures of Uttarakhand are included in Uttar Pradesh, Jharkhand is included in Bihar and Chhattisgarh is included in Madhya Pradesh. In some analysis Delhi is excluded for 55<sup>th</sup> round (July 1999-June 2000) because of the under-reporting.

In the light of above objectives and research questions of the present study, following methodology will be used:

### A. Rates and Proportions of Migration:

In the analysis of the trends and regional patterns of internal migration in India, the migration rate has been calculated by sex and residence. The formula of the migration rate is as follows:

$$\text{Migration rate} = \frac{\text{Total Number of Migrants}}{\text{Total Population}}$$

For Rural to Urban Migration rate, following formula has been used:

$$\text{Rural to Urban Migration rate} = \frac{\text{Total Number of Rural to Urban Migrants}}{\text{Total Urban Population}}$$

In the third chapter, proportions and rates of migration has been used to show the background characteristics of rural to urban migrants. In the analyses of age-groups, all rural to urban migrants has been divided in to six age-groups: 0-14, 15-29, 30-44, 45-59, 60-74 and 75+. In the analysis of rural to urban migrants by educational attainment, the five categories have been made: 1) Illiterate 2) Primary: in this category migrant up to upper primary schooling has been included 3) Secondary: in this category migrant up to



higher secondary and diploma courses are included 4) Graduation and above: in this category migrants up to post-graduation and above has been included. To show the rural to urban migrants by different income groups, the monthly per capita consumption expenditure has been taken as the proxy of income and the quintile classes of it is calculated.

## **B. Logistic Regression:**

To show the probability of being rural to urban migrants in total internal migration Logistic Regression has been used. In which dependent variable is rural to urban migration which is converted in to binary variable (rural to urban migrant=1, otherwise=0) and explanatory variables taken are sex (male, female); age-groups (0-14, 15-29, 30-44, 45-59, 60-74, 75+); social groups (ST, SC, OBC and Others); marital status (never married, currently married, widowed, divorced/ separated); educational attainment (illiterate, primary, secondary, graduation and above) and reasons of migration (employment related reason, studies, marriages, migration with the earning member of the family and others). In all the explanatory variables first one is reference category except reason of migration in which last (other reasons) is the reference category.

The logistic regression used in the study can be expressed by the following equation form:

$$L_i = \left( \frac{P_i}{1 - P_i} \right) = \beta_0 + \beta_1 SEX + \beta_2 AgeGroups + \beta_3 Social Groups + \beta_4 Marital Status + \beta_5 Educational Attainment + \beta_6 Reason of Migration + u_i$$

Where,  $P_i$  is the probability for rural to urban migration takes place and

$1 - P_i$  is otherwise.

$\beta_0$  is the constant term,  $\beta_1$  to  $\beta_6$  is the regression coefficient associated with the independent variables, and  $u_i$  is error term.

### **C. Principal Component Analysis:**

In fourth chapter, Principal Component Analysis has been used to make a composite index of infrastructure. The principal component analysis- a branch of factor analysis- is a technique design primarily to synthesize large number of variables in to a smaller number of general components which retain the maximum amount of descriptive ability. It is a mathematical procedure that uses an orthogonal transformation to convert a set of observations of possibly correlated variables into a set of values of uncorrelated variables called principal components. The number of principal components is less than or equal to the number of original variables. In the PCA approach, first principal component is that linear combination of weighted facilities which explains the maximum of variance across the observation at a point in time. The rationale for using Principal Component Analysis is that it helps one to reach an aggregate representation from various individual indicators. For making the composite index of Infrastructure from Principal Component Analysis following variables has been used:

- Road Density per 100 square Km.
- Railway Density per 1000 square Km.
- Annual per capita Electricity Consumption (In KWH).
- Number of Telephone connections per 100 population.
- Number of Schedule Commercial Banks per 100000 population.
- Number of Beds in Government Hospitals per 100000 population.
- Number of Primary School per 100000 population.
- Number of Middle School per 100000 population.
- Number of Colleges per 100000 population.

The number of colleges per 100000 population is not included for the period of 1993 and 2000 as it shows low correlation with other variables while in 2007, middle school is excluded for the same reason.

#### **D. Ordinary Least Square Model of Regression:**

In the same chapter to establish the relationship between rural to urban migration and economic development, Ordinary Least Square Model of regression has been used. In this model cross-sectional data has been used, in which all the variables (dependent variable and independent variable) are collected for the same time period of 1993-94, 1999-2000 and 2007-08. Two separate models have been used in this study: in first model Inter-state Rural to Urban Male Migration is dependent variable and in second model Inter-state Rural to Urban Total Migration have been used as a dependent variable. Levels of Infrastructural Development, Per Capita Net State Domestic Product and per worker Net Value Added are the variables which have been used as dependent variables. The structural equations for the OLS regression model used in the analysis are following:

$$\begin{aligned} \text{ISRUMMIG} &= \beta_0 + \beta_1 \ln(\text{PCNSDP}) + \beta_2 \text{PWNVA} + \beta_3 \text{CII} + u_i \\ \text{ISRUTMIG} &= \beta_0 + \beta_1 \ln(\text{PCNSDP}) + \beta_2 \text{PWNVA} + \beta_3 \text{CII} + u_i \end{aligned}$$

Where, ISRUMMIG stands for Inter-State Rural to Urban Male Migration,

ISRUTMIG stands for Inter-State Rural to Urban Total Migration,

PCNSDP stands for Natural Log of Per Capita Net State Domestic Product,

PWNVA stands for Net Value Added Per Worker in Industrial Sector and

CII stands for the Composite Index of Infrastructure Development.

$u_i$  stands for error terms.

**E. Cartographic Methods:** Cartographical methods like Bar-diagrams and Choropleth Maps have been used for the graphical representation of the present study.

## **1.9 Organization of the Chapters:**

The present study is framed in to five chapters. Chapter one provides the introduction of the topic, statement of the problem, survey of the existing literatures related to the rural to urban migration, conceptual framework, research questions, objectives, data base and methodology used in this study. In the second chapter a detail analysis of the trends and spatial patterns of rural to urban migration will be present across the states of India. The third chapter deals with the characteristics of migrants like age, sex, social status and economic status. In fourth chapter a relationship between rural to urban migration and economic development has been analyzed and last chapter provides the conclusions and remarks of the whole study.

## **CHAPTER 2**

### **TRENDS AND PATTERNS OF RURAL-URBAN MIGRATION IN INDIA AFTER ECONOMIC REFORMS**

#### **2.1 Introduction:**

The existing literature in migration studies in India shows that rural to urban migration has not been explored as extensively as certain other demographic phenomenon. This is perhaps due to the general belief that India has a traditional society with a relatively immobile population. The predominance of agriculture, strong community ties, lack of education, the rigidity of caste system, the diversity of languages, culture and food habits are the main reasons suggested by the research scholars for the immobility of Indian population (Chandrasekhar, 1950; Davis, 1951). In the recent years, rural to urban migration has attracted the attention of academicians as well as policy makers not only in India but throughout world, because it plays an important role in the process of economic development and social transformations.

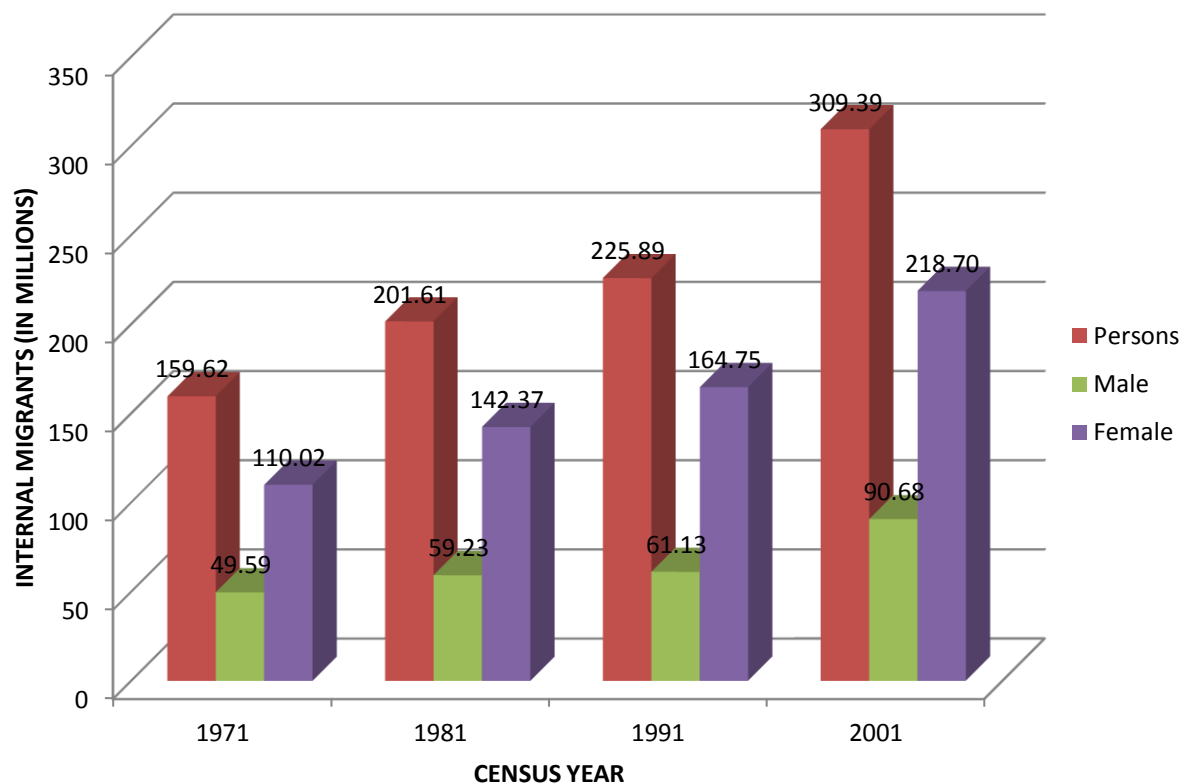
As a result of severe balance of payment crises, India adopted a new economic policy in the year 1991. The basic features of this policy provide the opportunities to the private sectors to participate in the development process as it open the economy for private sectors by providing the licensing and removal of the government controls. The impact of this policy can be seen in the form of development of infrastructure, communication, industrial and economic growth but it is only concentrated to urban areas. After economic reforms the regional disparity in India is also increasing which results more migration from undeveloped regions to developed regions.

Therefore in the above context, the first chapter deals with temporal and spatial analysis of internal migration in India especially urban migration. This chapter also deals with the share of each stream (rural to rural, urban to rural, rural to urban and urban to urban) into total internal migration with intra-district, inter-district and inter-state movement. Then last section of this chapter provides the analysis related to the changing scenario of rural to urban migration and its spatial variation after economic reforms.

## 2.2 Temporal Changes in Internal Migration in India:

India is the second largest populous country in the world. According to 2001 census, India had a population over one billion in which 72.19 percent lived in the rural areas while 27.81 percent lived in urban areas. After independence, people in urban areas as a percentage of total population increased slowly from 17.33 percent to 27.81 percent. In this process rural to urban migration played very important role.

**FIGURE 2.1 ABSOLUTE NUMBER OF INTERNAL LIFETIME MIGRANTS IN INDIA BY SEX, 1971-2001**



The total lifetime migrants in India based on the place of last residence criteriae is given in figure 2.1. In 1971 census total lifetime internal migrants were 159.62 million comprising of 49.59 million male and 110.02 million female. In terms of total volume of lifetime internal migrants, the figure increased to 201.61 million in 1981, 225.89 million in 1991 and 309.39 million in 2001. The percentage figures of lifetime internal migrants in India give a clear picture of male-female and total migration in India.

**Table 2.1 Internal Lifetime Migrants in India by Sex and Residence (In Percentages ),1971-2001**

Census Year	Total			Rural			Urban		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
1971	30.60	18.90	42.80	27.18	12.89	42.25	36.92	35.00	39.16
1981*	30.30	17.22	44.30	28.29	12.06	45.34	36.80	33.24	40.84
1991**	26.75	13.96	40.53	25.38	9.66	42.10	30.71	26.10	35.87
2001	30.07	17.04	44.05	27.98	11.14	45.78	35.51	31.98	39.44

Source: Computed from Migration Tables, Census of India, (1971-2001).

\* The figures for 1981 do not include Assam as the Census could not be conducted there.

\*\* The figures for 1991 do not include Jammu & Kashmir as the Census could not be conducted there.

Note-unclassified migrants are included into total, urban and rural figures.

Migration Statistics of India shows that rate of internal migration in India declined from 1971 to 1991 for both sexes and for rural as well as urban areas. In 1971, the percentage of internal lifetime migrants to total population was 30.60 percent which declined up to 26.75 percent in 1991. Many scholars argued that it could be suspected that Census of India underestimates the total number of migrants, because from three type of population mobility- commuting, circular or seasonal and permanent, it covers only permanent migration while seasonal migration and commuting are the most significant emerging pattern of internal migration in India. However, the percentage of lifetime migrants has increased to 30.07 percent in 2001. The main reason behind could be explain in the context of linking of Indian economy to global economy, because of it many MNCs has come to Indian market and job opportunities has increased and rural-urban gap has been wide which results more rural to urban migration. The percentage of male migrants declined from 18.90 percent in 1971 to 13.96 percent in 1991 but it has been increased to 17.04 percent in 2001. The percentage of female migrants increased to 44.30 percent in 1981 which is high from 1971 and 1991. In 1991, the female migration reached up to 40.53 percent. In 2001, it again increased to 44.05 percent. The main reason behind female migration is the socio-cultural setup in India in which female generally migrate after marriage but in recent years employment and work related migration in females has also started.

The rural-urban figures of internal migration follow the above patterns. The percentage of migrants in rural areas declined from 27.18 percent in 1971 to 25.38 percent in 1991. In 2001, it increased to 27.98 percent. In the case of males, it declined from 12.89 percent in 1971 to 9.66 percent in 1991 while in 2001 it shows a slight increase to 11.14 percent. The percentage of rural female migrants in total rural female population increased to 45.34 percent which was higher than 1971(42.25 percent) and 1981(42.10 percent). However it increased to 45.78 percent in 2001. The percentage of migrants in urban areas had higher percentage in respective total population than the migrants in rural area. It shows declining trends from 36.92 percent (1971) to 30.71 percent (1991). Again in 2001 a slight increase had been found and it increased to 35.51 percent. The percentage of male urban migrants decreased from 35.00 percent (1971) to 26.10 percent (1991). It increased to 31.98 percent in 2001. The main reason of increasing urban male migrants is the increasing job opportunities in formal and informal sectors after economic reforms. In the case of female, the percentage of female urban migration was high only in 1981(40.84 percent) which was all time high from 1971-2001. In 2001, it was 39.44 percent. Therefore the census data of lifetime internal migration based on place of last residence criteriae show declining trends from 1971 to 1991 both for males and females and rural/urban. The last decades have experienced a slight increase in it which could be the effect of globalization.

The migration data from Census of India is not sufficient to describe the temporal changes in internal migration in India after economic reforms because there is only one census after this phenomenon. Therefore further analysis in this dissertation has been done with the help of National Sample Survey (NSS) data of migration because it provides the latest data on Internal Migration up to 2007-2008(64<sup>th</sup> Round of NSS) and it also captures the circular and seasonal migration. These specially designed surveys by National Sample Survey Organization, no doubt, provide better alternative for in-depth study of people's mobility. After economic reforms three round of National Sample Survey related to Migration has been carried out and from these three rounds, the proper analysis of the internal migration in India can be done.



**Table 2.2 Total Internal Migration in India by Sex and Residence (In Percentage)**

NSS Rounds	Total			Rural			Urban		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
<b>49th Round (Jan-June,1993)</b>	24.40	10.51	39.35	22.53	6.22	39.86	30.22	23.47	37.73
<b>55th Round (July 1999- June 2000)</b>	26.29	11.54	41.87	24.06	6.77	42.10	32.85	25.22	41.18
<b>64<sup>th</sup> Round (July 2007-June 2008)</b>	28.32	10.65	46.98	25.90	5.24	47.56	35.08	25.57	45.33

*Source: computed from Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> Rounds.*

Table 2.2 shows that after economic reforms the percentage of internal migrants to total population is increasing with each round. In 49<sup>th</sup> round it was 24.40 percent which increased to 28.32 percent in 64<sup>th</sup> round. The percentage of male internal migrants increased from 10.51 percent (49<sup>th</sup> round) to 11.54 percent (55<sup>th</sup> round) but recently migration data of NSS 64<sup>th</sup> round shows a decline (10.65 percent) in male migrants. In the case of females, it is increasing consequently with each round. In 49<sup>th</sup> round it was 39.35 percent which increased to 46.98 percent to 64<sup>th</sup> round. Therefore the above figures of internal migration by NSS generally supports the Census results on internal migration, 2001 and it extend the hypothesis that the economic reform in India could increase the internal migration.

The percentage of rural migrants was 22.53 in 49<sup>th</sup> round which increased to 25.90 percent in 64<sup>th</sup> round. In the case of male rural migrants it increased from 6.22 percent (49<sup>th</sup> round) to 6.77 percent but in last round it show a declining trend. It reached to 5.24 percent in 64<sup>th</sup> round. The reason can be partly explained by the sluggish growth of rural non-farm sectors, rural unemployment and rural poverty. The percentage of female rural migrants shows an opposite trend. It is increasing with each round. In 49<sup>th</sup> round it was 39.86 percent which increased to 47.56 percent in 64<sup>th</sup> round. The increase in the rural female migration is associated with marriage related migration. In the country like India, marriage is the most common cause for increasing rural female migration. The migration in urban area is increasing with each round as the percentage of urban migrants in urban population is increasing. It increased from 30.22 percent (49<sup>th</sup> round) to 35.08 percent (64<sup>th</sup> round). Urban male and female migrants both are increasing, for male it increased from 23.47 percent (49<sup>th</sup> round) to 25.57 percent (64<sup>th</sup> round) and for female it increased from 37.73 percent (49<sup>th</sup> round) to 45.33 percent (64<sup>th</sup> round). Increasing

number of migrants are playing very important role in the process of urbanization of Indian towns and cities. Some scholar (Kundu and Sarangi, 2007) argued that the increase in urban migration is attributed to more liberal definition of migrants adopted by NSS. It may be the one factor but the impact of globalization, privatization and liberalization on Indian market cannot be ignored. On the one side, this whole phenomenon generated new jobs in the Indian formal and informal economy and on the other side, it ultimately negatively affects rural economy, handicrafts, household industry on which rural poor survives. The first side attracts the rural population towards urban centres while the second side pushes the rural poor towards urban centers. But ultimately by both way migrants are increasing in urban areas.

### **2.3 Spatial Pattern of Internal migration in Urban India:**

The spatial pattern of internal migration in urban India shows large variations with the time because the level of socio-economic development is different from one state to other and it is changing with the time. The historical and socio-cultural evolution of each state is also responsible for this variation. Therefore for the country like India, this kind of variation is not very surprising.

#### **2.3.1 Pattern of Urban Male migrants in India:**

The table 2.3 shows the quartile classes of the urban male migrants into different states. In all the three rounds most of the north eastern states lie in quartile first or second except Assam, Nagaland and Arunachal Pradesh in 49<sup>th</sup> round and Nagaland and Sikkim in 55<sup>th</sup> and 64<sup>th</sup> rounds. This shows that male migration rate in urban area among these states are very low. Urban male migration is directly related to work and employment but the north-eastern states are very backward in term of economic development, therefore the job-opportunities are very less in these states and their male migration rate in urban areas is very low. Some states like Assam, Sikkim and Nagaland have better conditions because in the last decade of 20<sup>th</sup> century urbanization levels in these states has gone up. The key contributory factors are various projects initiated by State and Central governments and the role of missionaries in creating educational infrastructure (Khawas, 2005). In Northern states, an uneven distribution of urban male migrants has been found as some states like Haryana, Delhi, Chandigarh and Himachal Pradesh show high urban

male migrants in all the three round but Uttar Pradesh, Bihar, Punjab and Jammu & Kashmir show low urban male migration rate as they lie in the quartile one or two in all the three rounds. The main cause of low urban male migration in Jammu and Kashmir is the political turmoil and special status provided by the Indian Constitution, which inhibits permanent settlement of the people from other states. In Uttar Pradesh and Bihar, low infrastructural development for the industrial settings and economic backwardness is the main cause of low urban male migration.

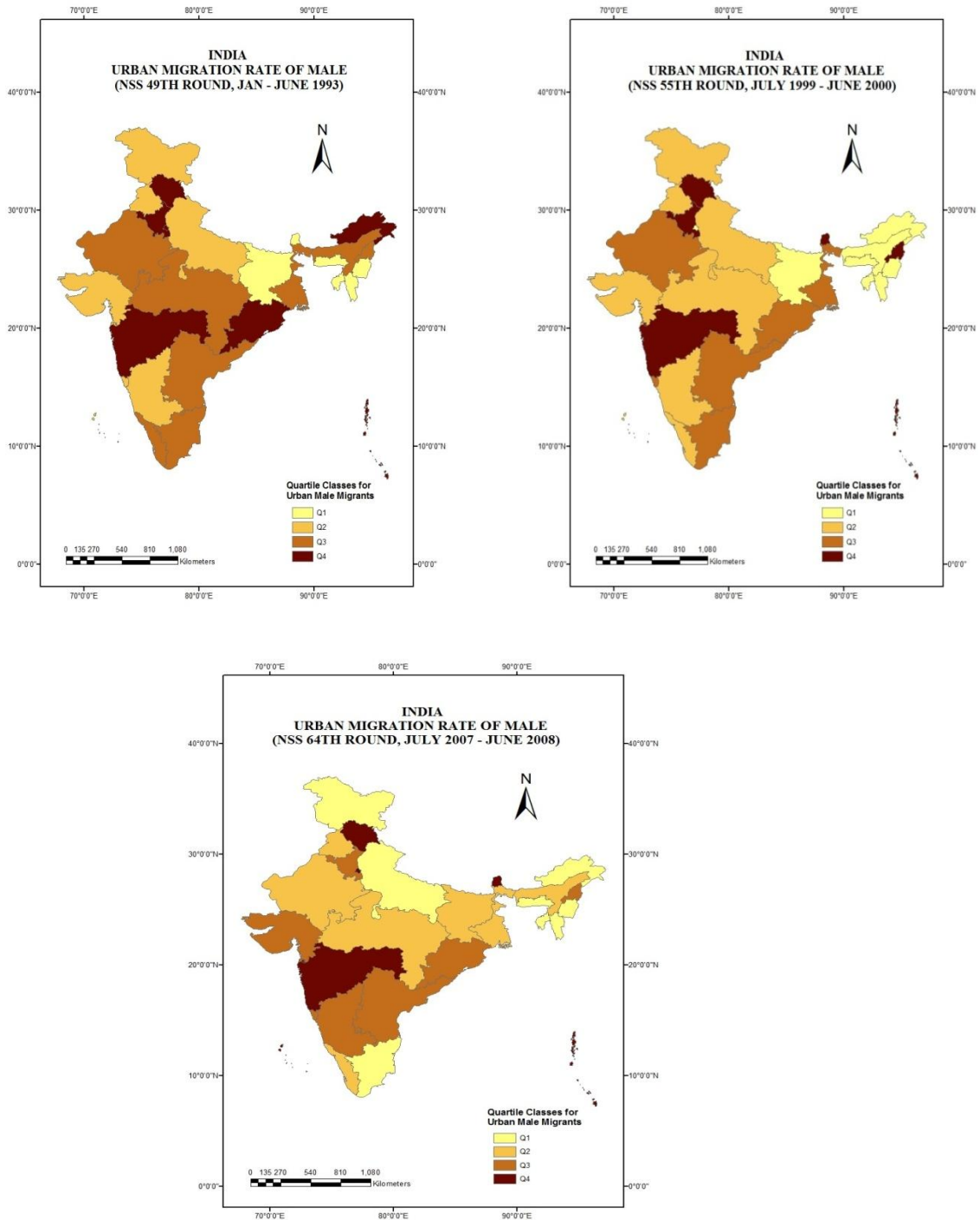
**Table 2.3 Quartile Classes of the Migration Rate of Urban Male in different States**

Rounds		49 <sup>th</sup> (Jan-June,1993)	55 <sup>th</sup> (July 1999-June 2000)	64 <sup>th</sup> (July 2007-June 2008)
Quartile Classes of Urban Male Migrants	Q1	Manipur, Bihar, Meghalaya, Mizoram, Sikkim, Daman & Diu, Pondicherry, Tripura	Mizoram, Manipur, Arunachal Pradesh, Delhi, Meghalaya, Tripura, Assam, Bihar	Manipur, Arunachal Pradesh, Meghalaya, Tripura, J&K, Tamilnadu, UP, Mizoram
	Q2	J&K, Punjab, UP, Dadar & Nagar Haveli, Goa, Lakshadweep, Karnataka, Gujarat	MP,J&K, Lakshadweep, UP, Punjab, Gujarat, Kerala, Karnataka	MP, Bihar, Pondicherry, WB, Punjab, Assam, Rajasthan, Kerala
	Q3	Nagaland, Rajasthan, MP, Kerala, Assam, AP, WB, Tamil Nadu	Daman & Diu, Rajasthan, WB, Tamil Nadu, Orissa, AP, Pondicherry, Goa	Daman & Diu, Karnataka, Gujarat, Haryana, Goa, Nagaland, Orissa, AP
	Q4	Orissa, Himachal Pradesh, Haryana, Arunachal Pradesh, Maharashtra, Delhi, Chandigarh, A&N Islands	Haryana, Maharashtra, Sikkim, Chandigarh, Himachal Pradesh, Nagaland, Dadar & Nagar Haveli, A&N Islands	Maharashtra, Lakshadweep, Delhi, Himachal Pradesh, A&N Islands, Dadar & Nagar Haveli, Sikkim, Chandigarh

*Note: In 64<sup>th</sup> round, Chhattisgarh, Jharkhand and Uttarakhand figures are included with MP, Bihar and UP respectively for the comparative analysis of all three rounds.*

The migration rate for urban males in Madhya Pradesh and Rajasthan were high in 49<sup>th</sup> round but it is declining in next two rounds (see Appendix B 2.2) and in opposite the urban male migration rate in Gujarat is increasing with the time as it enters in quartile three in 64<sup>th</sup> round, the main reason is that the infrastructural development is increasing in Gujarat with the time and after economic reforms Gujarat is one of the most leading states in terms of FDI (foreign direct investment) that helps to set the new industries in the states.

## Map 2.1 Spatial Patterns of Urban Male Migrants in India



Note: Three new states have been formed in 2000, Uttarakhand from Uttar Pradesh, Jharkhand from Bihar and Chhattisgarh from Madhya Pradesh but for the comparative analysis, the boundaries of these states are merged in 64<sup>th</sup> round (July 2007-June 2008).

The male urban migration in West Bengal was high in 49<sup>th</sup> and 55<sup>th</sup> round as it lies in the third quartile but in 64<sup>th</sup> round it has decreased to second quartile. Haryana and Orissa experienced high urban male migration rates as they lie in quartile third and fourth in all the three rounds. After economic reforms many industrial developments have been taking place in Haryana and Orissa. Sonapat, Faridabad, Panipat are developing as new industrial hubs which attract the rural migrants of Uttar Pradesh and Bihar towards Haryana.

Orissa stood out as exception as it reports a significant inflow of urban male population. It could be explained in terms of massive public sector investment and creation of new job opportunities in industry and business (Kundu and Sarangi, 2007). Himachal Pradesh also shows a high urban male migration rate because of the massive government efforts for developing the urban infrastructure and basic services in the state. The migration rate of urban male is high in Delhi for the 49<sup>th</sup> and 64<sup>th</sup> round as it falls in third and fourth quartile but in 55<sup>th</sup> round it seems to be under reported (Singh, 2009) as it falls in first quartile.

In the southern part of the country, only Maharashtra has a consistency in urban male migration as it always lie in fourth quartile. Capital of Maharashtra “Mumbai” known as the economic capital of India since independence but after economic reforms most of the head offices of MNCs are located in Mumbai and the urban informal sector in Maharashtra is growing very rapidly. These are the main reasons for increasing urban male migration in Maharashtra. Most of the migrants in Maharashtra are from Uttar Pradesh and Bihar and the kinship and social network play very important role in it. Karnataka has low male migrants in 48<sup>th</sup> and 55<sup>th</sup> rounds as it falls in second quartile but in 64<sup>th</sup> round it increased and reaches into third quartile. Andhra Pradesh and Tamil Nadu has high urban male migrants in 49<sup>th</sup> and 55<sup>th</sup> round because after economic reform many new industries have been established in these states and the number of landless and surplus labours are very high in the rural area of these states. Therefore the probability to migrate towards the urban centers in search of employment is increasing among the individuals from rural Tamil Nadu and Andhra Pradesh than the individuals from the rural Rajasthan, Haryana and Punjab (Dubey et al, 2004). But in 64<sup>th</sup> round the urban male migration rate in Tamil Nadu has gone down as it lies in quartile first. Kerala has

low urban male migrants except 49<sup>th</sup> round. The human development index in Kerala is very high but it has the scarcity of service sectors therefore the rural migrants from Kerala migrate towards gulf countries or the states like Maharashtra (Khan, 2004).

### 2.3.2 Pattern of Urban Female Migrants in India:

The main causes of the female migration in urban areas are still marriages and movement with the earning member or household. The proportion of moving due to economic motives is higher for urban male migrants in comparison to urban female migrants (Srivastava, 2003). From the table 2.4 it can be easily identified that migration rate for urban female in north eastern states are very low as they fall in quartile first and second in all the three rounds. The main reason behind this is the customs of tribal society in which marriages are practiced into same tribal groups and in the same villages and the political and social conflict in north east is the second important reason for this.

**Table 2.4 Quartile Classes of the Migration Rate of Urban Female in different States**

Rounds		49 <sup>th</sup> (Jan-June,1993)	55 <sup>th</sup> (July 1999-June 2000)	64 <sup>th</sup> (July 2007-June 2008)
Quartile Classes of Urban Female Migrants	Q1	Manipur, Meghalaya, Mizoram, Sikkim, Lakshadweep, Bihar, Pondicherry, Daman & Diu	Mizoram, Manipur, Delhi, Arunachal Pradesh, Meghalaya, Tripura, Lakshadweep, Assam,	Arunachal Pradesh, Manipur, Meghalaya, Tripura, Lakshadweep, Mizoram, J&K, Tamil Nadu
	Q2	Nagaland, Tripura, Goa, Assam, Karnataka, Gujarat, Arunachal Pradesh, Delhi	J&K, Bihar, Daman & Diu, Goa, Tamil Nadu, AP, Karnataka, Pondicherry	Nagaland, Assam, Karnataka, Pondicherry, Daman & Diu, Delhi, Kerala, Goa
	Q3	Kerala, Tamil Nadu, J&K, AP, Punjab, Orissa, WB, UP	MP , Orissa, Kerala, WB, Maharashtra, Sikkim, Nagaland, Chandigarh	Bihar, Gujarat, WB, AP, UP, Maharashtra, Rajasthan, A&N Islands
	Q4	Maharashtra, Haryana, MP, Rajasthan, Dadar & Nagar Haveli, A&N Islands, Himachal Pradesh, Chandigarh	UP, Gujarat, Rajasthan, A&N Islands, Punjab, Dadar & Nagar Haveli, Haryana, Himachal Pradesh	Chandigarh, MP, Punjab, Orissa, Haryana, Himachal Pradesh, Dadar & Nagar Haveli, Sikkim

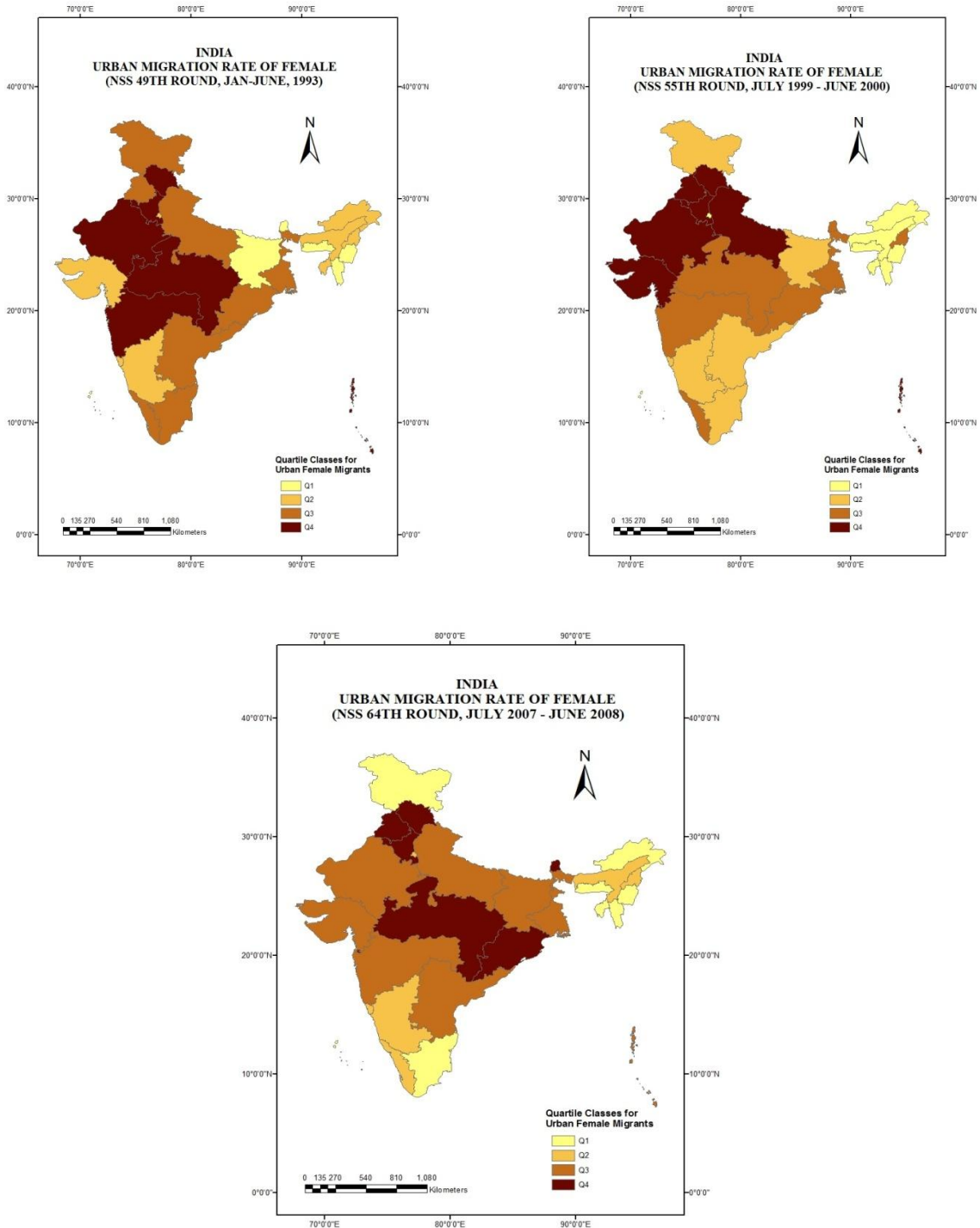
*Note: In 64<sup>th</sup> round, Chhattisgarh, Jharkhand and Uttarakhand figures are included with MP, Bihar and UP respectively for the comparative analysis of all three rounds.*

Recently Sikkim has experienced high urban female migration as it lies in quartile two and three in 55<sup>th</sup> and 64<sup>th</sup> rounds consequently. The urban female migration in Jammu and Kashmir is decreasing, the reason can partly be explained by village endogamy in marriage practiced among Muslim population where mostly cross cousin or parallel cousin marriages take place (Agrawal, 1990). Since most of the moves in female are for marriage purpose and where this type of close kin marriages takes place women seldom cross boundaries, migration automatically happens to be low.

In North and North-West states the urban female migration is always high as they lie in quartile third or fourth in all the three rounds. Uttar Pradesh, Haryana, Rajasthan, Punjab, Himachal Pradesh show high female migration in urban areas. In this region, marriages among Hindu are mostly outside the native place, village endogamy being forbidden among virtually all caste groups and especially for upper castes. So in these states women very often cross the boundaries of their district and intra-state rural to urban marriages has been practiced (Agrawal, 1990). This is the main reason that these states lie in quartile third and fourth. West Bengal and Madhya Pradesh show high female urban migration rate as it lie always in quartile third and fourth. For West Bengal the reason can partly be explained by huge influx of female immigrants from the neighboring country of Bangladesh. In Madhya Pradesh the reasons are same like in Uttar Pradesh, Punjab and Haryana.

In the South India, Maharashtra and Andhra Pradesh show high female migrants in urban areas. In Maharashtra, migrants generally come from Uttar Pradesh and Bihar and live in slum areas. After some duration of stay in urban areas, the family of the rural male migrants also moves with them including the womenfolk (Srivastava, 1998). While in Andhra Pradesh the intra-state rural to urban female migration is very high due to marriages and it is not only in Andhra Pradesh but more or less in all Southern States. The main reason can be partly explained by the cross- cousin marriage practiced in these states (Karve as cited in Agrawal, 1990).

## Map 2.2 Spatial Patterns of Urban Female Migrants in India



Note: Three new states have been formed in 2000, Uttarakhand from Uttar Pradesh, Jharkhand from Bihar and Chhattisgarh from Madhya Pradesh but for the comparative analysis, the boundaries of these states are merged in 64<sup>th</sup> round (July 2007-June 2008).



But recently Karnataka, Tamil Nadu and Kerala show the declining trends in urban female migration. One of the main reasons behind the decreasing rate of urban female migrants in these states is that women's educational status is improving with time in all the southern states and they are not married early and this gets reflected in the higher percentage in the 'never married' category for the southern states in NSSO data. Their migration to the city could be attributed to the migration of the parents or with peer groups (Santhi, 2006).

#### **2.4 Streams of Migration in India:**

The total internal migration in India can broadly be divided into four different streams viz., rural to rural, rural to urban, urban to rural and urban to urban. In which rural to rural and urban to rural constitute total internal rural migrants while rural to urban and urban to urban constitute total internal urban migrants. Similarly from the point of view of distance it can be classified as intra-state (intra-district and inter-district) and inter-state migration. Table-2.5 depicts the percentage distribution of internal migrants in different streams for males and females after economic reforms (49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> round of NSS) at intra-district, inter-district and inter-state distance categories, respectively.

The results from the table 2.5 show a considerable decline in the proportion of intra-district migrants for both males and females, where as both inter-district and inter-state migrations are increasing over the same time period. It can be explained by the phenomenal changes which have occurred after economic reforms. After economic reforms, in each state, a few large cities emerged as centres of industrial investment as they received a large chunk of the subsidized amenities provided through their state governments that attracted the elites, professionals and industrialists. As a consequence, most of the backward regions or districts received very little of the subsidized amenities and of the private investment coming into the states. This resulted in movement of people from backward to developed regions/large cities within the state (Kundu and Sarangi, 2007). At the same time expansion of urban informal sectors during this period is the main cause of increasing inter-state migration (Lusome and Bhagat, 2006).

**Table 2.5 Percentage Share of Migrants in Each Stream in Total Internal Migrants by Sex and Distance**

Migration Categories	Persons			Male			Female		
	49th	55th	64th	49th	55th	64th	49th	55th	64th
<b>Intra-District Level</b>									
Rural-Rural	49.52	46.62	44.70	22.74	21.95	17.25	57.21	53.79	51.27
Urban-Rural	2.90	3.06	2.76	3.68	3.96	2.87	2.68	2.80	2.73
Rural-Urban	8.97	8.22	8.02	13.27	12.15	12.74	7.73	7.08	6.89
Urban-Urban	3.84	4.63	3.67	6.15	7.05	5.09	3.17	3.92	3.33
Sub-Total	65.23	62.53	59.14	45.84	45.11	37.95	70.79	67.59	64.21
<b>Inter-District Level</b>									
Rural-Rural	11.01	12.16	14.29	7.66	7.21	6.72	11.97	13.59	16.11
Urban-Rural	2.45	2.14	1.91	4.49	3.58	3.38	1.86	1.72	1.56
Rural-Urban	5.76	6.82	6.55	11.14	12.69	12.17	4.21	5.11	5.20
Urban-Urban	4.81	5.70	6.46	8.63	10.23	12.72	3.71	4.39	4.96
Sub-Total	24.01	26.81	29.21	31.93	33.70	35.00	21.74	24.81	27.83
<b>Inter-State Level</b>									
Rural-Rural	2.80	2.97	2.74	3.08	3.53	3.21	2.72	2.81	2.63
Urban-Rural	1.06	1.31	0.99	2.81	3.26	2.68	0.56	0.74	0.58
Rural-Urban	4.00	3.82	4.91	10.17	9.33	14.12	2.23	2.22	2.70
Urban-Urban	2.89	2.56	3.01	6.18	5.07	7.03	1.95	1.83	2.04
Sub-Total	10.76	10.66	11.64	22.23	21.19	27.04	7.46	7.60	7.96
Grand-Total	100	100	100	100	100	100	100	100	100
<b>All Distance Categories</b>									
Rural-Rural	63.33	61.74	61.74	33.47	32.70	27.19	71.90	70.19	70.01
Urban-Rural	6.41	6.50	5.65	10.98	10.79	8.94	5.10	5.26	4.87
Rural-Urban	18.73	18.86	19.47	34.58	34.16	39.03	14.17	14.41	14.79
Urban-Urban	11.53	12.89	13.14	20.97	22.35	24.84	8.82	10.14	10.34
Total	100	100	100	100	100	100	100	100	100

*Source: Calculated from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.*

Rural to rural migration is the most dominant stream at the national level but its share has been declining over time both for males and females in all distance categories. The decline is more in males in comparison to females. There is a large share of female intra-district rural to rural migration which is generally explained in terms of marriage while rural to rural intra-district male migration seems to be due to their migration from areas of low agricultural productivity to sparsely populated areas with new developmental activities (Gosal and Krishnan, 1975; Quoted in Premi, 1990). With the increasing distance categories, the share of rural to rural migration is decreasing both for

males and females and for inter-state migration category its percentage share to total internal migration is less than rural to urban migrants both for males and females. The percentage share of urban to rural migrants is very less and it is declining with time for both sexes in all distance categories.

In opposite, the share of rural to urban migrants into total internal migration has been increasing over time in inter-district and inter-state categories. In intra-district migration category, a declining trend has been found both for male and female. The main reason can be partly explained by the improvement in the transport and communication after economic reforms which boost the inter-district and inter-state rural to urban migration. The second reason can be the increasing regional disparity between rural and urban areas in terms of job opportunities, education and health facilities which results into the increasing inter-district and inter-state rural to urban migration and decreasing intra-district rural to urban migration.

The share of urban-to-urban migration is decreasing for the male in the intra-district stream, but it increased substantially in the inter-district and inter-state categories. As institutions of higher learning, particularly professional and technical institutions, are not available in each district, an urge for higher education motivates urban dwellers as well as some of the rural folk to migrate over long distances. This is also partly due to the creation of high paid jobs in the modern sector in major metropolises and big cities (Premi, 1990 as quoted in Lusome & Bhagat, 2006).

Combining all the three distance categories of migration (i.e. intra-district, inter-district and inter-state migration), it has been found that percentage share of rural to rural migration into total internal migration has decreased substantially. The decline is greater in case of males as compared to females. While the share of rural to urban and urban to urban has increased, both for males and females. The reasons are the same as explained above.

## **2.5 Spatio-Temporal Pattern of Rural to Urban Migration after Economic Reforms:**

Rural to urban migration plays a very important role in the development process. After economic reforms many changes have been occurred in the spatial patterns of rural to

urban migration in India. The Table 2.6 and 2.7 give a comparative scenario of rural to urban migration across the major states with intra-district, inter-district and inter-state movement. Here, the rural to urban migrants expressed as percentage of rural to urban migrants to the total urban population. The table 2.6 is related to rural to urban male migration while table 2.7 is for female. The details of these tables are following:

### **2.5.1 Intra-district Rural to Urban Male Migration:**

The results from table 2.6 show that in 49<sup>th</sup> round, intra-district rural to urban male migration was highest in Andhra Pradesh followed by Orissa, Himachal Pradesh, Kerala, Madhya Pradesh, Rajasthan and Maharashtra. While Bihar reports lowest rural to urban intra-district male migration followed by Uttar Pradesh, Punjab, Haryana, Sikkim, Assam, Karnataka and West Bengal. In 55<sup>th</sup> round, Andhra Pradesh again has high intra-district male migration but in other states which have high intra-district rural to urban male migrants in 49<sup>th</sup> round like Orissa, Kerala, Madhya Pradesh, Maharashtra and Assam intra-district male migration show declining trends. In opposite, Himachal Pradesh, Sikkim, Bihar, Tamil Nadu and Karnataka show increasing intra-district male migration. The lowest intra-district rural to urban male migration in 55<sup>th</sup> round is in Punjab followed by Assam, Madhya Pradesh and West Bengal. In 64<sup>th</sup> round, Sikkim has highest intra-district rural to urban male migrants followed by Andhra Pradesh, Himachal Pradesh and Rajasthan. Punjab reported lowest intra-district rural to urban migration followed by West Bengal, Uttar Pradesh. In mostly states like Uttar Pradesh, Punjab, Haryana, Maharashtra, Karnataka, Tamil Nadu, Kerala intra-district rural to urban migration is declined. From the above it can be easily indentified that intra-district rural to urban male migration in most of the Indian states is declining over the time except Andhra Pradesh, Himachal Pradesh, Rajasthan and Sikkim.

The reasons are the same as discussed above that after economic reforms, transport and communication facility is increasing, therefore people can easily move to long distance. The regional disparity is also increasing; within the state some districts receive high attention in term of fund allocation for infrastructure and other kinds of development while others are neglected by the state and central government. The development is going on in some specific centres like state capital and other districts where industries are located. The main reason for male migration is work and employment and therefore they

migrate towards the developed districts or developed states and that's why intra-district rural to urban male migration is decreasing.

**Table 2.6 Rural to Urban Male Migration Rates in the Major States by Intra-District, Inter-District and Inter-State Movement**

States	Intra-District			Inter-District			Inter-State			Total		
	49th	55th	64th	49th	55th	64th	49th	55th	64th	49th	55th	64th
A.P.	10.82	10.98	12.57	5.59	7.44	9.36	0.92	1.07	1.30	17.33	19.50	23.23
Assam	5.19	3.21	6.18	4.51	2.38	7.64	3.90	0.85	2.96	13.60	6.43	16.78
Bihar	0.88	4.81	8.37	1.39	3.60	4.07	0.19	0.16	0.91	2.46	8.57	13.35
Gujarat	5.80	4.16	7.29	3.54	5.98	4.35	1.86	4.39	8.04	11.19	14.53	19.68
H.P.	9.49	10.48	12.16	6.13	10.58	10.94	1.08	6.70	7.80	16.70	27.76	30.90
Haryana	4.12	5.16	3.55	2.47	2.94	2.76	15.11	12.26	13.28	21.70	20.36	19.59
Karnataka	5.12	6.84	4.32	2.66	3.79	6.12	1.13	2.42	3.93	8.91	13.05	14.37
Kerala	9.33	8.81	6.86	3.50	4.32	5.40	0.36	1.44	1.38	13.19	14.57	13.64
M.P.	8.02	3.66	4.22	3.07	3.07	3.11	2.19	2.59	3.48	13.29	9.32	10.82
Maharashtra	6.72	4.71	4.20	8.82	8.07	6.86	8.78	10.82	9.55	24.32	23.60	20.62
Orissa	10.43	5.99	7.80	6.00	12.53	7.82	2.21	2.87	2.38	18.63	21.39	18.00
Punjab	3.41	2.36	1.57	2.50	2.20	1.21	4.18	11.37	11.54	10.09	15.93	14.32
Rajasthan	6.73	8.33	10.70	2.81	5.33	4.38	1.51	2.13	2.65	11.05	15.78	17.73
Sikkim	3.44	11.34	13.81	0.26	6.28	4.16	0.61	14.27	11.75	4.32	31.89	29.72
T.N.	4.45	4.81	4.01	7.47	7.53	4.17	1.63	1.01	0.95	13.54	13.36	9.13
U.P.	4.43	5.81	3.26	4.74	6.51	4.75	1.04	2.05	2.08	10.20	14.37	10.10
W.B.	4.62	3.79	1.96	4.95	5.10	4.27	8.17	5.64	5.20	17.74	14.52	11.43
India	5.61	5.42	5.10	4.71	5.66	4.87	4.30	4.16	5.65	14.61	15.25	15.63

Source: Calculated from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

A.P. –Andhra Pradesh, H.P.- Himachal Pradesh, M.P.- Madhya Pradesh, T.N.- Tamil Nadu, U.P.- Uttar Pradesh, W.B.-West Bengal.

### 2.5.2 Inter-District Rural to Urban Male Migration:

In 49<sup>th</sup> round, Inter-district rural to urban male migration is high in Maharashtra followed by Tamil Nadu, Himachal Pradesh, Orissa, and Andhra Pradesh. The lowest inter-district rural to urban male migration is in Sikkim followed by Bihar, Haryana, Rajasthan Punjab, and Karnataka in the same round. In 55<sup>th</sup> round, Orissa has high inter-district rural to urban male migrants followed by Himachal Pradesh, Maharashtra, Tamil Nadu and Andhra Pradesh. In this round the lowest inter-district male migration is in Punjab, Haryana and Assam. Mostly states show increasing trend except Maharashtra.

In 64<sup>th</sup> round, Himachal Pradesh has high inter-district rural to urban male migrants followed by Andhra Pradesh, Orissa and Assam. The lowest inter-district rural to urban male migration is in Punjab followed by Haryana, Madhya Pradesh and Bihar. In 64<sup>th</sup> round mostly states show declining trends in Inter-district rural to urban male migration in which Maharashtra, Gujarat, Punjab, Haryana, Rajasthan, Uttar Pradesh, Bihar are the main. States in South India like Karnataka, Kerala, and Andhra Pradesh show increasing trends. Over all inter-district rural to urban male migration increased from 4.71 percent (49<sup>th</sup>) to 4.87 percent (64<sup>th</sup>). After economic reforms within the state, regional disparity has increased; therefore male migrants generally prefer to move towards the high developed districts.

### **2.5.3 Inter-State Rural to Urban Male Migration:**

In 49<sup>th</sup> round rural to urban inter-state male migration is highest in Haryana followed by Maharashtra, West Bengal, Punjab, Madhya Pradesh and Assam. Bihar reported the lowest inter-state rural to urban male migration followed by Bihar, Kerala, Sikkim, Andhra Pradesh, Uttar Pradesh, Rajasthan and Gujarat. In 55<sup>th</sup> round Sikkim has highest rural to urban inter-state male migration followed by Haryana, Punjab, Maharashtra, Himachal Pradesh and West Bengal. The lowest rural to urban inter-state male migration is in Bihar followed by Tami Nadu, Andhra Pradesh, Kerala and Uttar Pradesh. In this round some state like Sikkim, Punjab, Gujarat, Maharashtra show increasing trend.

In 64<sup>th</sup> round, Haryana has high inter-state rural to urban migration followed by Sikkim, Punjab, Maharashtra, Gujarat, Himachal Pradesh and West Bengal. The lowest rural to urban inter-state male migration is in Bihar followed by Tamil Nadu, Andhra Pradesh, Kerala and Uttar Pradesh. It is clear that more urbanized and developed states like Maharashtra, Haryana, Punjab, Gujarat attract rural migrants towards their urban centres (Bhagat and Mohanty,2009). Uttar Pradesh and Bihar have lowest inter-state rural to urban male migrants because of low development.

Over all the results of table 2.5 show that rural to urban migration in India is increasing with time period. In states like Haryana, Punjab, Gujarat, Andhra Pradesh it is increasing. Maharashtra shows a declining trend as its rural to urban migration rate has gone down from 24.32 percent (49<sup>th</sup> round) to 20.62 percent (64<sup>th</sup> round) but still it has highest rural to urban migrants in India. The states like Uttar Pradesh and Bihar have low

rural to urban migrants. Some states like Sikkim and Himachal Pradesh have high rural to urban migrants and it is increasing with time. The reason can be partly explained by the massive government efforts for developing the urban infrastructure and basic services in these states which attract the rural migrants toward urban areas (Kundu and Gupta, 1996).

#### **2.5.4 Intra-district Rural to Urban Female Migration:**

The results from table 2.7 shows that Intra-district rural to urban female migration in India is decreasing as it has gone down from 12.68 percent (49<sup>th</sup> round) to 12.42 percent (64<sup>th</sup> round). In 49<sup>th</sup> round, the highest rural to urban female migration is in Himachal Pradesh followed by Madhya Pradesh, Orissa, Rajasthan, Andhra Pradesh and Maharashtra. The lowest rural to urban migration is in Sikkim, Haryana, Bihar, Assam and Tamil Nadu. In 55<sup>th</sup> round, Kerala has highest intra-district rural to urban female migration followed by Himachal Pradesh, Sikkim, Rajasthan, Orissa, Uttar Pradesh, Madhya Pradesh and Bihar. The lowest rural to urban intra-district female migration is in Assam, Tamil Nadu and Haryana for the same round. In this round rural to urban intra-district female migration has gone down for many states like Maharashtra, Punjab, Himachal Pradesh, West Bengal and Madhya Pradesh. In opposite, states of Southern India like Andhra Pradesh, Karnataka, Tamil Nadu and Kerala show increasing trends in intra-district rural to urban migration.

In 64<sup>th</sup> round, Himachal Pradesh has highest rural to urban intra-district female migration followed by Orissa, Sikkim, Andhra Pradesh and Kerala. The lowest rural to urban intra-district female migration is in Haryana followed by Tamil Nadu, Maharashtra, Karnataka, Punjab and West Bengal. In northern states like Bihar, Madhya Pradesh, Rajasthan it has declined. In all the three rounds Andhra Pradesh, Kerala, Himachal Pradesh, Orissa have high rural to urban intra-district migration. The reasons are different for all these states but all are related with marriage-practiced in different states.

#### **2.5.5 Inter-district Rural to Urban Female Migration:**

In 49<sup>th</sup> round, the highest inter-district rural to urban female migration rate is in Maharashtra followed by Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Tamil Nadu, Assam and Punjab. The lowest inter-district rural to urban female migration is in Sikkim followed by Bihar, Gujarat, Karnataka and Kerala in the same round. In 55<sup>th</sup>

round, Orissa has highest inter-district rural to urban female migrants followed by Uttar Pradesh, Himachal Pradesh, Tamil Nadu, Gujarat, Maharashtra, Punjab, and Rajasthan. The lowest inter-district rural to urban female migration is in Assam followed by Karnataka and Kerala.

**Table 2.7 Rural to Urban Female Migration Rates in the Major States by Intra-District, Inter-District and Inter-State Movement**

States	Intra-District			Inter-District			Inter-State			Total		
	49th	55th	64th	49th	55th	64th	49th	55th	64th	49th	55th	64th
A.P.	15.63	16.06	20.73	6.87	8.24	11.35	1.16	1.17	1.12	23.66	25.47	33.20
Assam	7.76	5.24	13.39	7.40	3.55	8.00	1.15	0.80	2.15	16.31	9.59	23.54
Bihar	8.27	12.51	15.42	2.10	7.21	10.13	0.13	0.68	2.52	10.50	20.40	28.06
Gujarat	11.55	13.00	14.10	4.25	10.04	10.48	1.63	4.75	5.56	17.43	27.78	30.14
H.P.	24.02	20.34	24.89	8.67	10.68	11.04	4.11	5.64	7.41	36.81	36.65	43.34
Haryana	6.97	8.99	7.82	6.45	8.42	12.31	14.42	14.90	15.20	27.83	32.31	35.33
Karnataka	10.09	11.95	10.18	4.45	5.20	8.37	1.73	2.84	3.91	16.27	19.99	22.46
Kerala	19.41	21.88	20.30	5.63	5.49	7.39	0.18	1.36	0.71	25.21	28.73	28.40
M.P.	20.19	12.89	14.75	7.84	7.71	10.88	3.94	2.86	4.74	31.96	23.46	30.37
Maharashtra	13.60	8.63	10.12	10.28	9.52	10.48	7.12	8.78	6.98	30.99	26.93	27.58
Orissa	19.73	15.29	23.67	6.60	14.07	10.19	2.28	2.74	2.84	28.61	32.10	36.70
Punjab	12.31	10.57	10.23	7.09	8.92	8.69	2.99	7.72	5.81	22.39	27.22	24.73
Rajasthan	18.11	16.16	18.21	6.65	8.62	8.47	2.50	3.37	2.94	27.26	28.15	29.62
Sikkim	2.61	16.55	22.72	0.06	7.02	12.98	0.03	13.34	7.46	2.70	36.91	43.16
T.N.	8.42	9.09	9.20	7.78	10.05	8.65	1.42	1.20	0.93	17.62	20.34	18.78
U.P.	14.22	14.49	11.65	9.63	12.57	11.52	1.63	1.79	3.05	25.49	28.85	26.22
W.B.	12.28	10.90	10.89	6.59	7.42	8.12	4.82	3.52	4.25	23.69	21.84	23.27
India	12.68	11.88	12.42	6.91	8.58	9.38	3.66	3.72	4.88	23.26	24.18	26.68

Source: Calculated from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

A.P. –Andhra Pradesh, H.P.- Himachal Pradesh, M.P.- Madhya Pradesh, T.N.- Tamil Nadu, U.P.- Uttar Pradesh, W.B.-West Bengal.

In 64<sup>th</sup> round, inter-district female migration is highest in Sikkim followed by Haryana, Uttar Pradesh, Andhra Pradesh, Himachal Pradesh, Gujarat and Maharashtra. The lowest inter-district rural to urban migration rate is in Kerala followed by Assam, West Bengal, Karnataka, and Rajasthan. Overall the inter-district rural to urban migration in India is increasing with time period as it increased from 6.91 percent (49<sup>th</sup> round) to 9.38 percent



(64<sup>th</sup> round). Most of the northern states in India show high inter-district rural to urban female migration because in these states most of the marriages take place outside the native area and females cross the boundaries of their district or state after marriage (Agarwal, 1990). In opposite the inter-district female rural to urban migration is not very high in southern state in comparison to northern states because of the cross-cousin marriage practiced.

### **2.5.6 Inter-State Rural to Urban Female Migration:**

Inter-state rural to urban female migration in India increased from 3.66 percent (49<sup>th</sup> round) to 4.88 percent (64<sup>th</sup> round). In 49<sup>th</sup> round, Haryana has highest inter-state rural to urban female migrants followed by Maharashtra, West Bengal, Himachal Pradesh and Madhya Pradesh. The lowest inter-state rural to urban female migrants is in Sikkim followed by Bihar, Kerala, Assam and Andhra Pradesh in the same round. In 55<sup>th</sup> round, Haryana repeats its rank as it has highest inter-state rural to urban female migrants followed by Sikkim, Maharashtra, Punjab, and Himachal Pradesh. The lowest inter-state rural to urban female migration is in Bihar followed by Assam, Andhra Pradesh, Tamil Nadu, Kerala and Uttar Pradesh. In this round, some states like Sikkim, Gujarat and Punjab have a boom in the inter-district rural to urban migration. The reason can be explained that the development has taken place rapidly in Gujarat and Punjab after economic reforms so rural male migrants of Uttar Pradesh and Bihar migrate towards these states in search of jobs with their women folks (Bhagat and Mohanty, 2009).

In 64<sup>th</sup> round, the highest inter-state rural to urban female migration is in Haryana followed by Himachal Pradesh, Sikkim, Maharashtra, Punjab and Gujarat. The lowest inter-state rural to urban female migration is in Kerala followed by Tamil Nadu, Andhra Pradesh, Kerala, Assam, Uttar Pradesh and Orissa. Mostly states show increasing trends in inter-state rural to urban female migration like Himachal Pradesh, Uttar Pradesh, Bihar, Madhya Pradesh, Haryana, Gujarat, West Bengal, Orissa and Karnataka. In opposite 64<sup>th</sup> round of NSS show that Maharashtra and some southern states like Kerala, Tamil Nadu and Andhra Pradesh show decline in comparison to 55<sup>th</sup> round. Over all the rural to urban female migration is increasing in India as it increased from 23.26 percent (49<sup>th</sup> round) to 26.68 percent (64<sup>th</sup> round). Small states like Himachal Pradesh and Sikkim show high increasing trends of rural to urban female migration, increasing intra-district

and inter-district marriages is the main reason of this. Maharashtra shows declining trends in rural to urban female migration with the time, it can be explained by the recent political conflict in Maharashtra. Most of the female migrants in Maharashtra come from Uttar Pradesh and Bihar with the earning member of their family and the recent political conflict between the migrants and local people reduce the tendency of the migration of female with the earning members of their household. All other states show increasing trends of rural to urban female migration from 49<sup>th</sup> to 64<sup>th</sup> round.

## **2.6 Summary and Conclusion:**

This chapter has tried to briefly introduce the changing trends and patterns of internal migration in India after economic reforms particularly for rural to urban stream. The analysis from the data of Census of India shows a decline in internal migration till 1991 but there is a significant increase in internal migration especially in urban migrants both among males and females during 1991-2001. The further analysis with the help of NSS 49<sup>th</sup> round (Jan-June 1993), 55<sup>th</sup> round (June 1999- July 2000) and 64<sup>th</sup> round (June 2007- July 2008) supports the data of Census 2001. It shows increasing trends of internal migration especially in urban areas. The process of economic reforms is increasingly breaking the economic barriers to trade and investment in the direction of making the national production system a part of global economy. As a result, capital can move to any country and commodities can be produced anywhere. Now foreign capital would give an impetus to the process of urbanization in India since much of the investment and consequent increase in employment would be within and around the existing urban centres. Even if industrial units were located in rural areas the location would acquire urban status in a few years. Therefore the regional disparity is increasing and people from rural areas are forced to migrate towards urban centre.

The spatial patterns of urban male migration in India show that Maharashtra, Haryana and Orissa have highest urban male migrants after economic reforms. Some small states like Sikkim and Himachal Pradesh also show high urban male migration. In opposite, Uttar Pradesh, Bihar, Jammu and Kashmir and North eastern States show low level of urban male migration. In Female migration, most of the north and north western states show high urban female migration rate including Maharashtra. In opposite, the rates of

internal female migration in urban areas are low among southern states of India. The reasons are different social customs and practices for the marriages in different states.

After economic reforms some changes have been occurred in different streams. The proportion of rural to rural migration streams has been declined in all the three distance categories (Intra-district, inter-district and inter-state) over the time period while the proportions of other streams especially rural to urban and urban to urban have increased over the period. In inter-state category, rural to urban and urban to urban migration has dominance to the rural to rural migration. This shows that long distance movements are more urban oriented than short distance. The urban to urban movement are also significantly increasing. Following to this trend, long distance rural to urban and urban to urban migration streams are likely to emerge as dominant migration streams in future.

The spatio-temporal analysis of rural to urban male migration shows that Haryana, and Maharashtra have high rural to urban male migration and Uttar Pradesh and Bihar have low rural to urban male migration in all three distance categories. Over all rural to urban male migration in India is increasing especially in inter-state category. An interesting finding is that most of the states who always have high rural to urban male migration like Haryana, Maharashtra, Orissa, Madhya Pradesh show declining trends over the time period but the states with low rural to urban male migration like Uttar Pradesh, Bihar, Punjab, Gujarat and Andhra Pradesh show increasing trends. Some small states like Himachal Pradesh and Sikkim has high rural to urban male as well as female migration over the time period in all three distance categories.

In the case of females, intra-district rural to urban migration rate is high in comparison to inter-district and inter-state rural to urban migration rates. Haryana, Maharashtra and Gujarat have high rural to urban female migrants in all the three distance categories. Most of the major states show high rural to urban female migration rate in intra-district category but increasing the distance, the rates are declining except Maharashtra and Haryana. Over all female rural to urban migration in India is increasing after economic reforms.

## **CHAPTER 3**

### **SOCIO-ECONOMIC PROFILE OF RURAL-URBAN MIGRANTS IN INDIA**

#### **3.1 Introduction:**

The process of rural to urban migration is selective in terms of migrant's age, sex and socio-economic backgrounds. These characteristics determine their prospects in the city and therefore, affect the decision to move or stay. At the one end of the socio-economic spectrum, migrants come from impoverished backgrounds, such as highly backward villages of rural India and are ill prepared for any kind of works in urban economy, but they do the most menial tasks in the city. At the other extreme, the members of privileged rural minorities come to the urban areas to attend the better level of education and climb the educational ladder high enough to gain access to a promising career in public administration, with a company or as a professional (Pacione, 2009). Therefore the importance of the study of the socio-economic backgrounds of rural to urban migrants for any country cannot be underemphasized as they affect the migration decision process and the future population of both area; the places of origin and destinations.

Rural to urban migration in India is also selective as most of the rural migrants who come to urban areas are not from a homogenous group. They come from different age-groups, castes, religions, income groups and education level (Mitra and Murayama, 2008). The literature related to rural to urban migration shows that in many countries, a large number of studies have been done on the characteristics of rural to urban migrants that why they move from the rural areas and from which socio-economic background they come from? But in India, it has remained one of the most neglected areas of research despite the fact that Census of India and NSS provide the sufficient data on migrant's background like age, sex, marital status, education and occupation for different streams. In this context, the present chapter firstly tries to bring out a comprehensive picture of the socio-economic backgrounds of the rural to urban migrants in all the three distance categories (intra-district, inter-district and inter-state) after economic reforms and afterwards, it briefly incorporate the different reasons for rural to urban migration in India. Most of the studies in rural to urban migration have focused only on male migrants

or the heads of the households on the assumptions that female frequently migrate only as parts of families and therefore the causes and the consequences of their migration are those of their spouses and families. Recently however, studies of rural to urban migration in some Asian countries have reported indications of increasing number of young women joining the migrant flow to the cities, many of them going on their own to find work in service, manufacturing and informal sectors (Lessinger,1986). Therefore in this chapter the whole analysis is done both for males as well as females.

In order to compare the socio-economic background of the rural to urban male and female migrants some criteria such as age, social-group, marital status, educational attainment, land possession and monthly per capita income has been discussed as following:

### **3.2 Rural to Urban migration by Age-Groups:**

In migration studies, age at which migration occurs is taken as an important variable because of several implications. It affects the socio-economic and demographic conditions of the place of origin as well as destination. The high rural to urban male migration results into degradation in agricultural productivity (Hugo, 1981), decrease in sex-ratio in favour of males particularly in younger age-groups and leads to decline in the fertility in the origin villages (Singh et al, 1981). In the case of urban ward migration, migrants are found to be mostly in adults age groups, in which jobs are normally available at other places and in which most of the girls married (Premi, 1984; Guo, 1999). For the purpose of the analysis the rural to urban migrants are divided into following six age-groups; 0-14, 15-29, 30-44, 45-59, 60-74 and 75 and above.

#### **3.2.1 Age-Differentials in Rural to Urban Male Migrants:**

From the table 3.1 it can be easily indentified that most of the male migration takes place in working age groups in all the three distance categories. In the child population (0-14) and old age population (60-74 and 75+), the intra-district and inter-district rural to urban migration is high in comparison to inter-state categories. The reason can be partly explained that in younger age, boys and girls migrate with parents or the earning member of the family to short distance (intra-district and inter-district) but in long distance (inter-

state) rural to urban migration people generally go alone to the urban areas in search of employment and leave their family in the village (Banerjee,2007).

**Table 3.1 Rural to Urban Male Migrants in India by Age-Groups (in %)**

Age-Groups	0-14	15-29	30-44	45-59	60-74	75+	Total
<b>Intra-District Level</b>							
<b>49th (Jan-June,1993)</b>	18.05	31.19	28.99	14.60	5.68	1.50	100
<b>55th (July 1999- June 2000)</b>	19.00	29.00	28.29	16.31	5.98	1.42	100
<b>64th (July 2007-June 2008)</b>	16.29	30.16	26.84	17.49	7.78	1.44	100
<b>Inter-District Level</b>							
<b>49th (Jan-June,1993)</b>	10.68	30.64	33.00	18.30	6.19	1.19	100
<b>55th (July 1999- June 2000)</b>	11.95	29.37	33.28	18.07	6.37	0.95	100
<b>64th (July 2007-June 2008)</b>	9.81	30.40	32.32	18.91	7.06	1.50	100
<b>Inter-State Level</b>							
<b>49th (Jan-June,1993)</b>	8.47	34.06	33.13	17.94	5.50	0.91	100
<b>55th (July 1999- June 2000)</b>	9.34	38.42	30.19	15.95	5.28	0.83	100
<b>64th (July 2007-June 2008)</b>	8.59	39.88	30.55	15.73	4.52	0.73	100
<b>All Distance Categories</b>							
<b>49th (Jan-June,1993)</b>	12.86	31.86	31.50	16.77	5.79	1.22	100
<b>55th (July 1999- June 2000)</b>	13.75	31.71	30.66	16.87	5.94	1.08	100
<b>64th (July 2007-June 2008)</b>	11.48	33.75	29.89	17.30	6.38	1.20	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

The movement in older age generally occurs after retirement from jobs or the entry into dependent status. Its share is high in intra-district categories because in the case of illness or death of spouse, old persons move to nearest potential supportive relatives (Rogers, 1988). Since most of the rural to urban migration occurs in 15-59 age groups, in-depth analysis is necessary to see in which particular age-groups the migrants dominate. From the above table it is clear that the proportion of age group 15-29 in intra-district and inter-district migration is decreasing over the time period but in inter-state categories it is increasing for the same period, which shows that tendency to long distance (inter-state) rural to urban migration is high in this age-group. After economic reforms, the communication facilities like television, radio and news paper are easily available in the rural areas therefore the rural population now know the availability of better education institutes and better employment condition in different states, therefore they tend to migrate towards these urban centres apart from the nearest one and increasing transport facility help them for it. This is the main reasons for the increasing inter-state rural to urban migration in the age group 15-29. In later age groups (30-44 and 45-59) male

migration is related to education and move with earning members decline drastically, only employment related migration dominate (see Appendix B3.1-3.3), therefore these age-groups have less proportion in comparison to 15-29 age-group in all the three distance categories.

### 3.2.2 Age Differentials in Rural to Urban Female Migrants:

The age-differentials are also found in rural to urban female migration and it has the differences from the male migration in terms of reason of migration (see Appendix B3.1-3.3). Table 3.1 and 3.2 indicate that working age groups are dominated among all the age groups in rural to urban migration for both sexes but in males it is because of work and employment while in females it is because of marriages.

**Table 3.2 Rural to Urban Female Migrants in India by Age-Groups (in %)**

Age-Groups	0-14	15-29	30-44	45-59	60-74	75+	Total
<b>Intra-District Level</b>							
<b>49th (Jan-June,1993)</b>	7.04	32.86	32.12	17.59	8.67	1.71	100
<b>55th (July 1999- June 2000)</b>	7.38	30.24	33.75	17.60	9.43	1.60	100
<b>64th (July 2007-June 2008)</b>	5.62	27.66	33.37	21.39	9.60	2.37	100
<b>Inter-District Level</b>							
<b>49th (Jan-June,1993)</b>	5.96	32.77	34.27	17.82	7.90	1.28	100
<b>55th (July 1999- June 2000)</b>	7.29	30.45	34.09	17.98	8.33	1.87	100
<b>64th (July 2007-June 2008)</b>	5.46	28.47	35.13	20.13	9.32	1.49	100
<b>Inter-State Level</b>							
<b>49th (Jan-June,1993)</b>	7.91	32.04	34.46	16.56	7.63	1.40	100
<b>55th (July 1999- June 2000)</b>	10.24	31.03	35.11	14.57	7.29	1.75	100
<b>64th (July 2007-June 2008)</b>	7.93	28.98	34.79	19.34	7.66	1.29	100
<b>All Distance Categories</b>							
<b>49th (Jan-June,1993)</b>	6.85	32.71	33.13	17.50	8.27	1.54	100
<b>55th (July 1999- June 2000)</b>	7.79	30.43	34.08	17.27	8.71	1.72	100
<b>64th (July 2007-June 2008)</b>	5.99	28.18	34.25	20.57	9.15	1.86	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

From the above table it is clear that the proportion of child age group (0-14) and old age groups (60-74 and 75+) of female migrants is lowest in all the three distance categories. The proportion of 0-14 age group for females is less than male. In this age group the main cause of the migration is moving with the earning members of the family or studies and in Indian rural society, preferences has been given to sons in studies and they move with earning member because it is believed that he will replace the earning members of the

household in future (Bhatt and Zavier, 2001; Kaur, 2004). The high proportion of rural to urban female migration is in 15-29 and 30-44 age groups and it is often associated with marriage and family migration.

In recent literature, scholars argue that large scale surveys in India like NSS underscore the female migration and relate it with certain reasons like marriages and family migration. In these surveys the respondents are required to give only one reason for migration and in the case of women it is generally identified as marriage. The woman may be working prior to marriage and intend to get married with an urbanite to enhance her potential for employment but it does not get captured. Moreover in the Indian cultural setting, it is inappropriate for a woman to emphasize her economic role especially if the interviewer is a stranger and a male. When male members answer the question, women's employment is underplayed. Therefore the rural to urban female migration in the adult age group is captured as marriage migration or family migration in most of the surveys (Srivastava and Bhattacharya 2003; Shanti, 2005). The economic liberalization and in particular, the trade liberalization in India has created gender specific labour demand and gives the preferences to women employees, therefore now rural women migrate towards the urban centres to avail the newly found opportunity in urban labour markets (Shanthi, 1991; Sardamoni, 1995 as quoted in Shanthi, 2005). The old age rural to urban female migration is associated with the family migration or moved with the earning member of the household.

### **3.3 Rural to Urban Migration by Social Groups:**

The rural society of India is organized in a tightly structured social hierarchy based on the caste and ethnicity. The caste system in rural India imposes certain restrictions on its members in the matter of social intercourse and hence, the decision process of the rural to urban migration is affected by the caste system (Dubey et al, 2004). Therefore it is an appropriate variable to study the process of rural to urban migration in India. In the table 3.3 and table 3.4, the rural to urban male migration by social groups has been expressed by the total number of rural to urban migrants in a particular caste into total urban population of that particular caste.



### 3.3.1 Rural to Urban Male Migration by Social Groups:

The results of table 3.3 show that in intra-district rural to urban male migration the propensity to migrate is highest among Scheduled Tribes (STs) followed by Other Backward Castes (OBCs) and it is increasing over the time of period. While in intra-district rural to urban migration, SCs and Others are equal in 49<sup>th</sup> round but over the time of period their percentages are decreasing, in Scheduled Castes (SCs) it has gone down from 5.52 percent to 4.48 percent while in Others it has gone down from 5.53 percent to 4.08 percent. In inter-district rural to urban male migration the condition is same as in intra-district rural to urban male migration.

**Table 3.3 Rural to Urban Male Migration Rate by Social Groups**

Social Groups	ST	SC	OBC	Other	Total
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)*</b>	7.84	5.52	–	5.53	5.60
<b>55th (July 1999- June 2000)</b>	8.22	5.52	6.20	4.63	5.38
<b>64th (July 2007-June 2008)</b>	8.33	4.48	6.31	4.08	5.10
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)*</b>	5.42	4.98	–	4.63	4.71
<b>55th (July 1999- June 2000)</b>	5.86	5.67	6.37	5.42	5.77
<b>64th (July 2007-June 2008)</b>	6.99	5.07	4.96	4.60	4.87
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)*</b>	2.36	4.78	–	4.28	4.30
<b>55th (July 1999- June 2000)</b>	3.58	4.10	3.01	4.88	4.13
<b>64th (July 2007-June 2008)</b>	4.17	6.50	3.98	6.87	5.65
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)*</b>	15.62	15.29	–	14.45	14.61
<b>55th (July 1999- June 2000)</b>	17.67	15.29	15.58	14.93	15.29
<b>64th (July 2007-June 2008)</b>	19.49	16.05	15.25	15.55	15.63

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

\*In the 49<sup>th</sup> round of NSS, data of OBC is not available as in schedule questionnaire the information related to OBC has not been collected.

The reasons of caste selective rural to urban male migration are different in each distance categories, in intra-district and inter-district the STs and OBCs are dominated because of the low expenditure in the process of rural to urban migration in these categories and SCs have less percentage because in rural areas, sometimes the agricultural labourers from SCs are fed, given clothing, daily wages and a small piece of land in return of services and to insure that they will not leave the house of the landlord until they do not get a

better opportunity into urban areas (Banerjee, 1986 and Kothari, 1980 as quoted in Yadava,1989).

In opposite, the propensity to inter-state rural to urban migration is high among SCs and Others. The dominance of SCs and Others in inter-state migration are partly explained by two different reasons. Historically, it was a common feature of Indian rural society that several castes could not acquire and own any form of property and these castes were excluded from attending formal education and acquiring human capital (Dubey et al., 2004). Therefore the SCs are generally landless and for the surviving they tend to migrate towards urban centers.

The education level among SCs is also very low and they are unskilled therefore they are generally engaged in the low paid job in urban areas and forced to live in very unhygienic conditions but still they prefer to migrate in urban centres because of their poor conditions. For them migration is a household strategy for managing risk where one or more members of family go away from the village to find work, and this is a central part of their livelihoods (Deshingkar and Shaheen Akter,2009). In opposite, the high propensity of inter-state rural to urban migration in Others category is because they generally migrate to urban centre for better education and after getting better education they will get engaged in the high paid professional jobs.

### **3.3.2 Rural to Urban Female Migration by Social Groups:**

The results from table 3.4 show that in intra-district and inter-district rural to urban female migration, STs, SCs and OBCs have high propensity to migrate in comparison to other categories. The reason can be partly explained that most of the marriages in these social groups are in nearest urban areas. Therefore the intra-district rural to urban migration is high in these groups.

The second reason may be that female from these castes have high tendency to engage as a domestic worker in nearest urban areas in comparison to Others category because in higher caste families, it is traditionally often shameful for the women to work outside their home and in opposite, lower caste have less social pressure, so women from the lower strata of society can take extra opportunities for the betterment of their households and therefore in short distance migration they dominate (Banerjee, 2007).

**Table 3.4 Rural to Urban Female Migration Rate by Social Groups**

Social Groups	ST	SC	OBC	Other	Total
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)</b>	19.93	14.65	–	12.02	12.69
<b>55th (July 1999- June 2000)</b>	14.90	14.64	14.94	8.99	11.90
<b>64th (July 2007-June 2008)</b>	16.99	13.81	14.87	9.54	12.42
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)</b>	5.98	8.04	–	6.75	6.91
<b>55th (July 1999- June 2000)</b>	7.95	9.12	9.59	8.12	8.72
<b>64th (July 2007-June 2008)</b>	8.62	10.38	10.04	8.52	9.38
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)</b>	2.34	4.12	–	3.62	3.65
<b>55th (July 1999- June 2000)</b>	4.87	3.35	2.71	4.15	3.61
<b>64th (July 2007-June 2008)</b>	3.13	5.52	3.67	5.82	4.88
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)</b>	28.25	26.82	–	22.39	23.25
<b>55th (July 1999- June 2000)</b>	27.72	27.11	27.24	21.27	24.24
<b>64th (July 2007-June 2008)</b>	28.74	29.71	28.58	23.88	26.68

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

\*In the 49<sup>th</sup> round of NSS, data of OBC is not available as in schedule questionnaire the information related to OBC has not been collected.

In inter-state rural to urban female migration the propensity to migrate is high in SCs and Others and it is increasing over the time from 4.12 percent to 5.52 percent in SCs and from 3.62 percent to 5.52 percent in Others. The reasons are different for SCs and Others, as most of the SCs female move to urban areas with the earning member of their household and they start to work as a domestic worker there (Shanthi,2005), while in Others category female migrate to urban centre for higher studies and because of long distance marriage practices.

### **3.4 Rural to Urban Migration by Education Attainment:**

Education plays a vital role in determining the migratory tendency of a society. A number of rural to urban migration studies in India have shown a positive relationship between the rates of rural to urban migration and the level of education attained by migrants. Education acts as a strong catalyst in the process of rural to urban migration as it enables the human being to understand his environment and acquire information for promotion of his interest. It is also assumed that more educated people in rural areas are supposed to be

more informed about outer world and opportunities available there and therefore they are more prone to migrate towards urban centers (Khan, 2010).

In the above context, the analysis of rural to urban migration by education attainment is very important. For the purpose of the analysis, the education attainment has been classified into following groups Illiterate, Up to Upper Primary, Secondary and Higher secondary and lastly Graduation and above. In the table 3.5 and table 3.6, the rural to urban male migration by education attainment has been expressed by the total number of rural to urban migrants in a particular educational attainment into total urban population of that particular educated group.

### **3.4.1 Rural to Urban Male Migration by Education Attainment:**

Table 3.5 shows that in intra-district and inter-district rural to urban male migration, migrants with secondary education and Graduation and above have high propensity to migrate in comparison to illiterate and primary educated. The reason can be explained that after economic reforms, in each state a few large cities emerged as centres of industrial investment as these had an advantage of having an industrial base and a higher level of basic services (Kundu and Gupta, 1996). Therefore the rural male, who have secondary education or graduation and above, migrate towards these small and medium towns in search of better employment instead of going to the large cities of other states.

In opposite the inter-state migration show that illiterate, primary and secondary educated male have high propensity to migrate in comparison to graduation and above educated male. It may be argued that educated persons in rural areas migrate within the state in search of employment while in inter-state migration its propensity to migrate is low. It is because after the economic reforms, the job profile is changing very fast in large cities; therefore the recruitment of the educated manpower in large cities is more from the city dwellers inspite of rural graduate. In opposite, the dependency for illiterate manpower in large cities is however similar and therefore the migration of illiterate, primary and secondary educated rural male is still high in inter-state migration (Kundu and Mohanan, 2009).

**Table 3.5 Rural to Urban Male Migration Rate by Education Attainment**

Educational Attainment	Illiterate	Primary	Secondary	Graduation and Above	Total
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)</b>	4.00	5.74	7.01	6.64	5.60
<b>55th (July 1999- June 2000)</b>	3.91	5.25	6.92	6.31	5.42
<b>64th (July 2007-June 2008)</b>	3.64	4.89	6.28	5.68	5.11
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)</b>	2.93	4.82	6.34	5.97	4.71
<b>55th (July 1999- June 2000)</b>	4.61	5.20	7.29	6.63	5.66
<b>64th (July 2007-June 2008)</b>	3.62	4.47	6.03	5.81	4.88
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)</b>	4.52	4.14	4.68	3.70	4.30
<b>55th (July 1999- June 2000)</b>	3.85	4.74	4.40	1.84	4.17
<b>64th (July 2007-June 2008)</b>	4.97	6.54	5.66	3.61	5.66
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)</b>	11.45	14.70	18.03	16.31	14.61
<b>55th (July 1999- June 2000)</b>	12.37	15.19	18.61	14.78	15.26
<b>64th (July 2007-June 2008)</b>	12.23	15.91	17.98	15.10	15.64

*Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.*

Thus the rural to urban migration by education status indicate that the current movement of persons with higher education is relatively more directed towards the neighboring urban centers, while the metropolitan and highly industrialized cities like Mumbai, Delhi and Kolkata are still attracting migrants of low educational level as they have done in the past (Yadav,1989).

### **3.4.2 Rural to Urban Female Migration by Education Attainment:**

Table 3.6 shows that in all the three distance categories, the female migrants who are illiterate or primary educated have high propensity to migrate in comparison to secondary educated or graduate women and it is increasing over the time of period. The reason is that most of the female migrants who migrate to urban centers are from SCs and STs (see table 3.4). They are generally illiterate or primary educated and move to urban areas with their husband or the earning member of the family. After some time, they started to work as a domestic worker or in low status jobs in urban areas and they establish a social network from which the other female migrants from the same villages come to city to do the same work (Neetha, 2004).

**Table 3.6 Rural to Urban Female Migration Rate by Education Attainment**

<b>Educational Attainment</b>	<b>Illiterate</b>	<b>Primary</b>	<b>Secondary</b>	<b>Graduation and Above</b>	<b>Total</b>
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)</b>	16.26	11.15	9.21	5.83	12.68
<b>55th (July 1999- June 2000)</b>	16.44	10.04	9.66	5.80	11.89
<b>64th (July 2007-June 2008)</b>	17.40	11.37	10.34	6.01	12.43
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)</b>	7.81	6.27	6.92	5.11	6.91
<b>55th (July 1999- June 2000)</b>	10.49	7.70	8.04	5.79	8.58
<b>64th (July 2007-June 2008)</b>	10.76	8.62	9.84	7.55	9.38
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)</b>	4.70	2.86	3.47	2.70	3.66
<b>55th (July 1999- June 2000)</b>	5.30	3.04	2.96	1.96	3.73
<b>64th (July 2007-June 2008)</b>	7.08	4.21	4.11	2.73	4.89
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)</b>	28.77	20.28	19.60	13.63	23.26
<b>55th (July 1999- June 2000)</b>	32.23	20.78	20.67	13.55	24.19
<b>64th (July 2007-June 2008)</b>	35.24	24.20	24.29	16.28	26.70

*Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.*

Female with secondary and higher education also migrate towards urban centres but they often belong to high social group and are employed in modern occupations (Singh, 1984 as quoted in Mitra and Murayama, 2008). Marriage is another cause for the rural to urban female migration of such group.

Over all it can be easily identified from the above table that propensity to migrate towards urban center is high among the illiterate, primary and secondary educated rural female and it is increasing over the time. In 49<sup>th</sup> round the percentage of illiterate rural to urban female migrants was 28.77 percent which increase to 35.24 percent in 64<sup>th</sup> round. In primary educated female, it was 20.28 percent in 49<sup>th</sup> round which increased to 24.20 percent. In secondary and graduate women it was 19.60 and 13.63 percent consequently in 49<sup>th</sup> round which increased to 24.29 and 16.28 percent in 64<sup>th</sup> round.

### **3.5 Rural to Urban Migration by Marital Status:**

Marital Status of a person has close bearing on migratory status of a person. It has been found in Indian society that males generally migrate after their marriage because they have to take care of their spouse and bear all her expenses as per the customs. Marriages bring many responsibilities which compel the males to migrate in order to fulfill the duties of not only a husband but also a father and a head of the family (Singh, 1985). In opposite some scholar like Kothari has a different view, they argued that married persons have more family burdens and obligations; hence they are less mobile in compared to single (Kothari, 1980 as quoted in Khan, 2010). In the case of females, it has been found that most of the females migrate due to marriages and to a certain extent to accompany their husband to the community where they are working.

In this context, it is very important to analyze the marital status of rural to urban migrants in all three distance categories. For the purpose of the analyses never married, currently married, widowed and divorced/ separated category of the rural to urban migrants has been used. In this analysis the proportional distribution of migrants by their marital status has been done.

#### **3.5.1 Rural to Urban Male Migration by Marital Status:**

Table 3.7 shows that currently married rural to urban male migrants have high proportion in all the three distance categories. The reason can be explained by the Indian social custom, in which after marriage males have to bear more responsibilities and therefore they have to earn for their family. In this process they migrate more towards the urban centers in search of employment. The current finding supports the existing literature in which it has been found that currently married migrants are more prone to migrate towards the urban centres (Zachariah, 1968; Singh, 1985).

Over the time of period the second high proportion is in never married category in all three distance categories. In this category most of migrants are in low age groups therefore the percentage of the associational migration is high in this category. In this category most of male migrate with the earning member of their family (see Appendix B 3.4 - 3.6).

**Table 3.7 Distribution of Rural to Urban Male Migrants by Marital Status (in %)**

Marital Status	Never Married	Currently Married	Widowed	Divorced/ Separated	Total
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)</b>	39.66	57.77	2.43	0.14	100
<b>55th (July 1999- June 2000)</b>	40.02	56.91	2.91	0.16	100
<b>64th (July 2007-June 2008)</b>	39.46	57.91	2.63	0.01	100
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)</b>	31.55	65.78	2.49	0.18	100
<b>55th (July 1999- June 2000)</b>	32.72	65.15	2.05	0.08	100
<b>64th (July 2007-June 2008)</b>	32.23	65.22	2.47	0.07	100
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)</b>	27.74	69.92	2.27	0.07	100
<b>55th (July 1999- June 2000)</b>	32.00	66.58	1.34	0.08	100
<b>64th (July 2007-June 2008)</b>	34.43	63.97	1.45	0.15	100
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)</b>	33.54	63.93	2.40	0.13	100
<b>55th (July 1999- June 2000)</b>	35.12	62.61	2.16	0.11	100
<b>64th (July 2007-June 2008)</b>	35.39	62.38	2.15	0.08	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

The proportion is very low in Widowed and Separated/Divorced Category and with increasing distance the proportional share for this category is decreasing also. The proportion of female widowed, divorced/separated migrants is higher than that of their male counterparts (see table 3.8) which indicate the fact of the Indian traditional society, in which remarriage of women is not common but in contrary, man can marry more than once if his wife has died (Singh,1986).

### **3.5.2 Rural to Urban Female Migration by Marital Status:**

The results of the table 3.8 show that the proportion of never married females in all the three distance categories is low in comparison to males (see Table 3.7). The main reason is that in Indian society unmarried girls are seldom allowed to migrate from the rural area to town or cities to try their luck or make their fortune. For such things parents quite often allow their sons to take precedence over their daughters, because the sons are considered as an asset while the daughters are considered as liability (Singh, 1986).



**Table 3.8 Distribution of Rural to Urban Female Migrants by Marital Status (in %)**

Marital Status	Never Married	Currently Married	Widowed	Divorced/ Separated	Total
<b>Intra-District Level</b>					
<b>49th (Jan-June,1993)</b>	10.96	76.14	12.07	0.83	100
<b>55th (July 1999- June 2000)</b>	12.06	75.35	12.01	0.59	100
<b>64th (July 2007-June 2008)</b>	10.95	75.47	12.94	0.64	100
<b>Inter-District Level</b>					
<b>49th (Jan-June,1993)</b>	11.52	76.67	11.59	0.22	100
<b>55th (July 1999- June 2000)</b>	12.18	75.66	11.50	0.65	100
<b>64th (July 2007-June 2008)</b>	11.90	76.57	10.78	0.75	100
<b>Inter-State Level</b>					
<b>49th (Jan-June,1993)</b>	13.89	76.59	9.33	0.19	100
<b>55th (July 1999- June 2000)</b>	14.05	76.76	8.83	0.35	100
<b>64th (July 2007-June 2008)</b>	13.02	77.67	8.93	0.38	100
<b>All Distance Categories</b>					
<b>49th (Jan-June,1993)</b>	11.59	76.37	11.50	0.55	100
<b>55th (July 1999- June 2000)</b>	12.41	75.68	11.34	0.58	100
<b>64th (July 2007-June 2008)</b>	11.66	76.26	11.45	0.63	100

*Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.*

The proportion of never married female migrants is high in inter-state category which show that now the migration of young girls in response to changing economic opportunities is becoming common (Shanthi,2006). The highest proportion of rural to urban female migration is in currently married category in all three distance categories. The reason can partly be explained by the village exogamy practices and patrilocal system of residence after marriages in large part of the country (Premi, 1980). In this category mostly female migration are because of marriages or associational migration (see Appendix B3.4-3.6). Some scholar argued that in recent years the situation is changing, many case studies indicate that it is the men who are ‘associational migrants’, not the women because families had migrated in response to female economic opportunity (as domestic servants, as vegetable vendors, flower vendors in front of the temple etc) and they are the primary or equal earners, male employment is often being irregular and uncertain (Neetha, 2002 as quoted in Shanthi, 2006). They also argued that

the present database on migration (Census and NSS) underscore the rural to urban migration because of employment and other reasons.

The proportion of widowed and divorced/separated female migrants is high in intra-district and inter-district category in comparison to inter-state category. In Indian society, most of the marriages happen within the state. After the widowhood or divorced/separation, women in the younger age groups are likely to return to their parents or nearest relatives and they are regarded as dependant migrants and in case of widowed and divorced women in older age, it is assumed that they move towards their children's home and therefore they are considered as associated migrants (Premi, 1980).

### **3.6 Rural to Urban Migration by Monthly Per Capita Consumption Expenditure:**

It is hypothesized that migration of a person to urban areas for economic reasons expands his earning opportunities and hence must have a negative impact on poverty (Kundu and Sarangi, 2007). Therefore the study of the migration process and incidence of poverty among migrants is very important but due to the limitation of data it is quite difficult to link poverty directly with migration. However, in absence of exact data on poverty, the monthly per capita consumption expenditure (henceforth MPCE) has usually been taken as a proxy variable to poverty in many studies on migration- this study also has followed the same practice. For the analysis of the rural to urban migrants by monthly per capita consumption expenditure, the quintile classes of monthly per capita consumption expenditure has been used.

#### **3.6.1 Rural to Urban Male Migration by Monthly Per Capita Consumption Expenditure:**

Table 3.9 shows that in 49<sup>th</sup> round, the share of bottom two quintiles in intra-district rural to urban male migrants is 26.08 percent and 31.09 percent respectively which is much above its 20 percent share in the population. Correspondingly, the share of upper two quintiles is very low which is significantly below its 20 percent share in the population but over the time of period its share is increasing while the share of bottom two quintiles is decreasing. It shows that migrants with higher per capita consumption expenditure have lesser mobility in intra-district rural to urban migration but over the time of period it

is increasing. The main reason for the migration of bottom two quintiles is employment related migration and migration with the earning member of the family (See Appendix B3.7-3.9).

**Table 3.9 Distribution of Rural to Urban Male Migrants across Quintile Classes of Monthly Per Capita Consumption Expenditure (in %)**

Quintile Groups	Lowest	Second	Third	Fourth	Highest	Total
<b>Intra-District</b>						
<b>49th (Jan-June,1993)</b>	26.08	31.09	19.06	11.59	12.18	100
<b>55th (July 1999- June 2000)</b>	22.49	20.47	20.90	18.86	17.29	100
<b>64th (July 2007-June 2008)</b>	23.74	23.82	19.49	19.13	13.82	100
<b>Inter-District</b>						
<b>49th (Jan-June,1993)</b>	16.46	24.99	20.60	19.08	18.86	100
<b>55th (July 1999- June 2000)</b>	16.73	20.46	22.79	21.29	18.72	100
<b>64th (July 2007-June 2008)</b>	13.15	20.05	23.49	23.10	20.22	100
<b>Inter-state</b>						
<b>49th (Jan-June,1993)</b>	10.66	20.11	24.26	20.69	24.29	100
<b>55th (July 1999- June 2000)</b>	13.03	17.15	22.21	29.75	17.85	100
<b>64th (July 2007-June 2008)</b>	11.18	20.80	24.51	26.08	17.43	100
<b>All Categories</b>						
<b>49th (Jan-June,1993)</b>	18.44	25.89	21.09	16.68	17.89	100
<b>55th (July 1999- June 2000)</b>	17.76	19.57	21.97	22.72	17.98	100
<b>64th (July 2007-June 2008)</b>	15.89	21.55	22.55	22.88	17.12	100

*Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.*

In inter-district rural to urban male migration the proportion of bottom two quintiles is decreasing in comparison to intra-district rural to urban male migration while in upper two quintiles it is significantly increasing; the same trend is in inter-state rural to urban male migration. It shows that with increasing distance the tendency of rural to urban migration is high among those who have high per capita consumption expenditure. The main reason for the high proportion of upper two quintiles in inter-district and inter-state migration is that the migrants of these quintiles migrate more towards long distance for the better employment and studies in comparison to lower two quintile classes (see Appendix B3.7-3.9) and they can better afford the cost of long distance migration in comparison to lower quintile classes.

### 3.6.2 Rural to Urban Female Migration by Monthly Per Capita Consumption Expenditure:

The table 3.10 shows that in 49<sup>th</sup> round, the share of bottom two quintile classes in intra-district rural to urban migration is 35.94 percent and 32.16 percent which is much higher to its 20 percent share in the population. In opposite the share of two upper quintile classes is 9.10 percent and 7.05 percent which is significantly below to its 20 percent share in the population. The main reason for the high proportion of bottom quintile classes in intra-district rural to urban migration is that these quintile classes generally belong to the deprived section of the society in which most of the marriages happen within the district. The association migration is also an important reason for high proportion of this category (see Appendix B3.7-3.9).

**Table 3.10 Distribution of Rural to Urban Female Migrants across Quintile Classes of Monthly Per Capita Consumption Expenditure (in %)**

Quintile Groups	Lowest	Second	Third	Fourth	Highest	Total
<b>Intra-District</b>						
<b>49th (Jan-June,1993)</b>	35.94	32.16	15.75	9.10	7.05	100
<b>55th (July 1999- June 2000)</b>	35.73	24.80	17.41	13.07	8.98	100
<b>64th (July 2007-June 2008)</b>	36.23	24.79	17.57	13.67	7.74	100
<b>Inter-District</b>						
<b>49th (Jan-June,1993)</b>	24.96	28.56	19.88	14.19	12.41	100
<b>55th (July 1999- June 2000)</b>	25.22	24.03	21.93	17.13	11.70	100
<b>64th (July 2007-June 2008)</b>	23.28	23.47	22.27	17.88	13.11	100
<b>Inter-state</b>						
<b>49th (Jan-June,1993)</b>	18.36	23.04	25.20	16.24	17.16	100
<b>55th (July 1999- June 2000)</b>	23.19	22.04	22.37	18.21	14.20	100
<b>64th (July 2007-June 2008)</b>	21.54	25.96	22.46	17.06	12.98	100
<b>All Categories</b>						
<b>49th (Jan-June,1993)</b>	29.91	29.66	18.47	11.73	10.23	100
<b>55th (July 1999- June 2000)</b>	30.08	24.11	19.77	15.30	10.74	100
<b>64th (July 2007-June 2008)</b>	28.99	24.54	20.12	15.77	10.58	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

In inter-district and inter-state migration, the proportion of upper quintile classes are increasing in comparison to intra-state rural to urban female migration. The reason can be partly explained that these classes belong to higher strata of the society in which long

distance marriage practices are very common so they cross the boundary of district and state more after their marriage in comparison to females who belong to bottom classes. They also migrate for the employment and studies purpose which could also be a reason for the increasing proportion of upper quintile classes in inter-district and inter-state migration (see Appendix B3.7-3.9).

### **3.7 Reasons of Rural to Urban Male Migration in India:**

For the analysis of the reasons of rural to urban migration in India, the reasons provided by NSS can be broadly classified in to following category:

#### **(1) Employment related Migration:**

The results of the table 3.11 show that the most prominent reason for the rural to urban migration in India is employment related migration followed by migration of parents/earning member of the family. In intra-district rural to urban male migration, 44.36 percent migrants (49<sup>th</sup> Round) migrate because of employment purpose in which 10.18 percent migrate in search of employment while 16.55 percent migrate in search of better employment. In intra-district rural to urban male migration, the figures for employment related migration are decreasing over the time of period. In 64<sup>th</sup> round the total employment related migration is 42.43 percent in which 7.53 percent males have migrated in search of employment, 13.71 percent males have migrated in search of better employment while 11.62 percent males have migrated to take up employment/better employment, the figure to take up employment/better employment has increased from 49<sup>th</sup> round and 55<sup>th</sup> round.

The employment related migration is increasing with distance. In inter-district rural to urban male migration, 61.78 percent (49<sup>th</sup> round) male migrants report that they migrate to urban center for employment purpose. This figure has increased to 62.27 percent in 64<sup>th</sup> round. In inter-district rural to urban male migration 22.59 percent male has migrated in search of employment, 22.78 percent male has migrated in search of better employment while 11.22 percent male has migrated to take up employment/ better employment in 49<sup>th</sup> round. In 64<sup>th</sup> round the figure for in search of employment and in search of better employment is decreasing to 17.86 percent and 20.02 percent respectively while figure of to take up employment/better employment is increasing.

In inter-state migration total 75.49 percent migrants (49<sup>th</sup> round) report that they migrate for the employment reason in which 38.10 percent report that they migrate in search of employment, 25.73 percent report that they migrate in search of better employment while only 9.92 percent report that they migrate to take up employment/better employment. The figures for the above categories in 55<sup>th</sup> round and 64<sup>th</sup> round show increasing trends. In 55<sup>th</sup> round total 73.96 percent inter-state rural to urban male migrants report that they migrate for the employment reason and this figure increase to 76.13 percent in 64<sup>th</sup> round. The overall results show that male migrants prefer inter-district and inter-state migration for the employment purpose.

### **(2) Studies:**

Migration for studies is also a very important reason for the male migration. The results from table 3.11 show that in intra-district rural to urban male migration 11.31 percent migrants migrate for the studies purpose in 49<sup>th</sup> round this figure increased to 13.95 percent in 64<sup>th</sup> round. In inter-district and inter-state migration the percentage share of migrants for the studies purpose are declining. In 49<sup>th</sup> round total share of inter-district male migrants for the studies purpose is 8.76 percent which has been decreased to 7.56 percent in 64<sup>th</sup> round. The share of inter-state migrants for the studies purpose is very low, in 49<sup>th</sup> round only 3.10 percent migrant reports that they migrate for the studies purpose and this figure decline over the time to 2.47 percent (64<sup>th</sup> round).

### **(3) Marriage:**

It is a negligible cause for the rural to urban male migration in India because in India society, female shifts their home after marriage not the male. The share of marriage related rural to urban male migration is high in intra-district in comparison to inter-district and inter-state migration. In intra-district rural to urban male migration it is 3.54 percent in 49<sup>th</sup> round which declined to 2.87 percent in 64<sup>th</sup> round while in inter-district its share is 1.97 percent which also declined to 1.65 percent. In inter-state migration its share is very low; 0.92 percent in 49<sup>th</sup> round and 0.43 percent in 64<sup>th</sup> round.

**Table 3.11 Percentage Distribution of Rural to Urban Male Migrants across different Reasons of Migration**

NSS Rounds	Reasons of Migration											Total
	In search of employment	In search of better employment	Business	To take up employment/ better employment	Transfer of Services/ Contract	Proximity to place of Work	Employment Related Migration	Studies	Marriage	Migration of parents/ earning member of the Family	Others	
1	2	3	4	5	6	7	(1-7)8	9	10	11	12	13
<b>Intra-District level</b>												
49th	10.18	16.55	0.00	9.27	6.83	1.53	<b>44.36</b>	11.31	3.54	30.28	10.51	100
55th	10.80	14.22	0.00	9.45	6.82	1.67	<b>42.96</b>	12.11	2.63	28.63	13.68	100
64th	7.53	13.71	3.25	11.62	4.52	1.80	<b>42.43</b>	13.95	2.87	29.06	11.69	100
<b>Inter-District Level</b>												
49th	22.59	22.78	0.00	11.22	4.34	0.86	<b>61.78</b>	8.76	1.97	22.45	5.03	100
55th	25.85	18.40	0.00	9.61	3.95	0.68	<b>58.49</b>	7.84	1.46	25.12	7.09	100
64th	17.86	20.02	2.26	17.89	3.59	0.67	<b>62.27</b>	7.56	1.65	21.85	6.68	100
<b>Inter-State Level</b>												
49th	38.10	25.73	0.00	9.92	1.59	0.15	<b>75.49</b>	3.10	0.92	17.21	3.28	100
55th	37.31	28.11	0.00	6.31	2.06	0.17	<b>73.96</b>	2.84	0.74	18.04	4.42	100
64th	32.17	27.79	2.49	12.28	1.21	0.19	<b>76.13</b>	2.47	0.43	18.04	2.94	100
<b>All Distance Categories</b>												
49th	22.40	21.26	0.00	10.09	4.49	0.91	<b>59.14</b>	8.07	2.26	23.90	6.62	100
55th	23.64	19.57	0.00	8.65	4.45	0.89	<b>57.20</b>	7.99	1.68	24.43	8.70	100
64th	19.67	20.77	2.67	13.81	3.03	0.86	<b>60.81</b>	7.80	1.60	22.82	6.96	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

Note: In 49<sup>th</sup> and 55<sup>th</sup> round Migration for the Business purpose was not included in the NSS questionnaire; it is introduced in 64<sup>th</sup> round of NSS.

#### **(4) Migration with parents/ earning member of the family:**

It is the second most important reason for rural to urban male migration. This category generally belongs to dependant population in which children and old age male are included. The results from table 3.11 show that in all three distance categories, the percentage share of migrants is higher after employment related migration. In intra-district rural to urban male migration, its percentage share is 30.28 percent in 49<sup>th</sup> round which decreased to 29.06 percent in 64<sup>th</sup> round. With increasing distance it is observed that association migration is decreasing which show that in long distance migration the tendency to migration of children and old age male is decreasing.

#### **(5) Others:**

There are some other reasons of rural to urban male migration in which migration due to natural disaster, migration due to political/social problem etc are included. The percentage share of this category is high in intra-district migration which is 10.51 percent in 49<sup>th</sup> round and 11.69 percent in 64<sup>th</sup> round. With increasing distance its share is decreasing; in inter-district migration its share is 5.03 percent in 49<sup>th</sup> round which increased to 6.68 percent in 64<sup>th</sup> round and in inter-state migration, its share is 3.28 percent in 49<sup>th</sup> round which decline to 2.94 in 64<sup>th</sup> round. In comparison to intra-district migration, the figures of inter-district and inter-state rural to urban male migration in this category are very low.

### **3.8 Reasons of Rural to Urban Female Migration in India:**

The analysis of the reason of rural to urban female migration is discussed in following categories:

#### **(1) Employment related Migration:**

From the table 3.12, it is clear that employment related migration is not a significant reason for rural to urban female migration as its percentage share is very low in all three distance categories. The share of intra-district rural to urban female migration is 2.67 percent in 49<sup>th</sup> round which declined to 1.74 percent in 64<sup>th</sup> round. With increasing distance the percentage share of employment related female migration is increasing. In inter-district migration its share is 4.53 percent in 49<sup>th</sup> round and 3.59 percent in 64<sup>th</sup> round and in inter-state migration its share is 4.23 percent in 49<sup>th</sup> round and 3.10 percent in 64<sup>th</sup> round. These figures show that female prefer the long distance migration such as inter-district and inter-state for employment



related migration. It can be partly explained by the wage differentials among intra-district and inter-district, inter-state migration.

## **(2) Studies:**

In comparison to male, rural to urban female migration is very low in all three distance category. In intra-district rural to urban migration, only 1.63 percent females (49<sup>th</sup> round) report studies as a reason of migration, this percentage increased to 3.18 percent in 64<sup>th</sup> round. In inter-district rural to urban female migration, 2.46 percent females are migrated for studies purpose in 49<sup>th</sup> round. In 64<sup>th</sup> round, this figure decline to 2.39 percent. The percentage share of inter-state rural to urban female migrants for studies purpose is very low in comparison to intra-district and inter-district category which show the tendency of Indian traditional society in which girls are generally not allowed to go very long distance for studies.

## **(3) Marriage:**

Marriage is the most important reason of rural to urban female migration and the percentage share of marriage related rural to urban female migration in all three distance categories supports this fact. In intra-district rural to urban migration, the share of marriage related female migration is 67.49 percent in 49<sup>th</sup> round which increased to 67.93 percent in 64<sup>th</sup> round. With increasing distance the percentage share of marriage related female migration is declining. In inter-district migration it is 59.53 percent (49<sup>th</sup> round) which increased to 63.23 percent in 64<sup>th</sup> round. It shows that over the time of period the inter-district rural to urban female marriage migration is increasing. In inter-state rural to urban female migration, 51.53 percent (49<sup>th</sup> round) female reposts marriage as a reason of migration which declined to 48.81 percent in 64<sup>th</sup> round. Although with increasing distance the percentage share of marriage related female migration is decreasing but in each category half of the rural to urban female migrate because of the marriage, therefore marriage is the main cause of rural to urban female migration.

## **(4) Migration with Parents/ earning member of the family:**

The second most important reason for the rural to urban female migration is associational migration in which female migrate to urban centres with parents or the earning member of

**Table 3.12 Percentage Distribution of Rural to Urban Female Migrants across different Reasons of Migration**

NSS Rounds	Reasons of Migration											Total
	In search of employment	In search of better employment	Business	To take up employment/ better employment	Transfer of Services/ Contract	Proximity to place of Work	Employment Related Migration	Studies	Marriage	Migration of parents/ earning member of the Family	Others	
1	2	3	4	5	6	7	(1-7)8	9	10	11	12	13
<b>Intra-District level</b>												
49th	0.59	1.14	-	0.35	0.45	0.15	<b>2.67</b>	1.63	<b>67.49</b>	24.76	3.45	100
55th	0.45	0.71	-	0.42	0.60	0.09	<b>2.28</b>	2.24	<b>65.27</b>	25.07	5.15	100
64th	0.51	0.34	0.05	0.58	0.16	0.10	<b>1.74</b>	3.18	<b>67.93</b>	22.74	4.41	100
<b>Inter-District Level</b>												
49th	1.34	1.64	-	0.94	0.37	0.25	<b>4.53</b>	2.46	<b>59.53</b>	30.18	3.30	100
55th	1.10	1.42	-	0.44	0.37	0.01	<b>3.34</b>	1.20	<b>60.62</b>	30.60	4.24	100
64th	1.08	0.91	0.12	1.00	0.25	0.22	<b>3.59</b>	2.39	<b>63.23</b>	27.15	3.65	100
<b>Inter-State Level</b>												
49th	1.78	1.97	-	0.28	0.14	0.06	<b>4.23</b>	1.45	<b>51.53</b>	39.20	3.60	100
55th	1.52	1.48	-	0.44	0.19	0.04	<b>3.67</b>	0.58	<b>52.29</b>	39.25	4.21	100
64th	0.93	1.06	0.25	0.55	0.08	0.23	<b>3.10</b>	0.92	<b>48.81</b>	43.93	3.25	100
<b>All Distance Categories</b>												
49th	1.00	1.42	-	0.51	0.37	0.17	<b>3.47</b>	1.85	<b>62.61</b>	28.65	3.43	100
55th	0.85	1.08	-	0.43	0.45	0.05	<b>2.87</b>	1.62	<b>61.62</b>	29.21	4.68	100
64th	0.79	0.67	0.11	0.72	0.18	0.17	<b>2.64</b>	2.49	<b>62.78</b>	28.16	3.93	100

Source: Computed from the Unit Level data of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds.

Note: In 49<sup>th</sup> and 55<sup>th</sup> round Migration for the Business purpose was not included in the NSS questionnaire; it is introduced in 64<sup>th</sup> round of NSS.

the family. In intra-district migration, its share is 24.76 percent (49<sup>th</sup> round) which decreased to 22.74 percent in 64<sup>th</sup> round. With increasing distance the associational migration is increasing, in inter-district and inter-state rural to urban female migration, its percentages are 30.18 and 39.20 (49<sup>th</sup> round) and 27.15 and 43.93 (64<sup>th</sup> round) respectively. Over the time of period the inter-district associational migration is decreasing while inter-state associational migration is increasing, it shows that now female are more migrating towards urban centre with their husband or the earning members of the family.

**(5) Others:** The percentage share of this category is also low in comparison to male migrants. In this category migration due to natural disaster and migration due to political and social conflict etc are included. In intra-district rural to urban migration, the percentage share of this category is 3.45 percent in 49<sup>th</sup> round which increased to 4.41 percent in 64<sup>th</sup> round. In inter-district and inter-state category, the percentage share is more or less the same. In inter-district, it is 3.30 percent in 49<sup>th</sup> round which increased to 3.65 percent while in inter-state it is 3.60 percent in 49<sup>th</sup> round and it decreased to 3.25 percent in 64<sup>th</sup> round. In all three categories, 55<sup>th</sup> round show high percentage share both in male and female, the reason can be partly explained that in 2000, five States across north and north eastern India have experienced extensive flooding caused by the seasonal monsoon rains. The heavy rains have caused widespread displacement of the population, affecting between 4 -5 million people in the States of Assam, Himachal Pradesh, Bihar, West Bengal and Arunachal Pradesh.

### **3.9 Logistic Regression Estimates Examining Associated Characteristics of Rural to Urban Migrants and their Reasons of Migration:**

The bi-variate analysis is not sufficient to give a conclusive information about what are the associated characteristics of rural to urban migrants and what is the reason of rural to urban migration in India because it depicts only the one to one relationship between two variables, whereas in reality hosts of factors play their role simultaneously in the process of rural to urban migration, therefore logistic regression has been applied in this analysis. The selection of explanatory variable of rural to urban migration varies from country to

country and it also varies within the boundary of a country depending on the socio-economic, demographic and cultural factors.

**Table 3.13 Logistic Regression Estimates Examining the Associated characteristics of Rural to Urban migrants and their reasons of Migration after Economic Reforms**

<i>Covariates</i>		<i>Rural to Urban Migration =1, Otherwise=0</i>		
		<i>49th Round</i>	<i>55th Round</i>	<i>64th Round</i>
		<i>Odds Ratio</i>	<i>Odds Ratio</i>	<i>Odds Ratio</i>
<b>Sex</b>	Male <sup>®</sup>			
	Female	0.889**	0.992**	0.959**
<b>Age-Group</b>	0-14 <sup>®</sup>			
	15-29	1.348**	1.144**	1.207**
	30-44	1.486**	1.169**	1.264**
	45-59	1.391**	1.061**	1.236**
	60-74	1.349**	0.962**	1.115**
	75+	1.332**	0.942**	1.118**
<b>Social Group</b>	ST <sup>®</sup>			
	SC	1.931**	1.501**	2.229**
	OBC#	-	1.718**	2.440**
	Others	2.167**	1.816**	2.658**
<b>Marital Status</b>	Never Married <sup>®</sup>			
	Currently Married	1.089**	1.100**	1.093**
	Widowed	1.281**	1.435**	1.382**
	Divorced/Separated	0.920**	0.852**	0.874**
<b>Educational Attainment</b>	Illiterate <sup>®</sup>			
	Primary	1.677**	1.466**	1.422**
	Secondary	1.677**	1.507**	1.504**
	Graduation and above	1.108**	1.023**	0.966**
<b>Reason of Migration</b>	Others <sup>®</sup>			
	Employment Related Migration	3.501**	4.127**	5.117**
	Studies	5.024**	4.181**	3.686**
	Marriage	0.803**	0.728**	0.734**
	Migration with the parents/earning member of the family	2.617**	2.787**	3.486**
<b>Statistics</b>	N	189261178	242162035	285812513
	Constant	-3.072	-2.653	-3.057
	2 Log Likelihood Ratio	164578505.32	159305301.26	246691148.43
	Chi-Square	17993975.41**	17828303.64**	34271872.54*
	Negelkarke R Square	0.146	0.150	0.181

<sup>®</sup>Reference Category, \*\* Significant at 0.01 level, #- In 49<sup>th</sup> round OBC category is not included.

Rural to Urban migration occurs in response to a wide range of factors, which affect people in different way and to which people do not respond in an identical fashion. The inclusion of an explanatory variable depends on its importance and availability of its measurement. The selection of explanatory variable used in this analysis is the product of the scale of investigation, the availability of data and a survey of existing literature. Each of the explanatory variables in the logistic regression is discussed above with bi-variate analysis and thereafter it has been used.

From the above results, it can be observed that controlling all other factors, females are less likely to be a rural to urban migrant in comparison to male because its odds ratio is low (0.889 in 49<sup>th</sup> round, 0.992 in 55<sup>th</sup> round and 0.959 in 64<sup>th</sup> round) in all the three rounds. When the age-group is concerned it is found that in 49<sup>th</sup> round, controlling all the factors, the probability of being rural to urban migrants is 1.3 times more in 14-29, 45-59, 60-64 and 75+ age groups. The highest odds ratio (1.486) is found in 30-44 age groups which show that this age group is more likely to migrate in comparison to 0-14 age-groups. In 55<sup>th</sup> round, the probability of being rural to urban migrants is high among 15-29, 30-44, 45-59 age groups in comparison to 0-14 age group while it is decreasing in old age groups. In 64<sup>th</sup> round the probability to migrate from rural to urban areas is increasing with increasing age-groups. In 14-29, 30-44, 45-59 age-groups it is 1.2 times more while in 60-74 and 75+ age groups, it is 1.1 times more. Over all the odds ratio of different age-group indicate that the adult and old age group is more likely to migrate from rural to urban area in comparison to children age-group.

In 49<sup>th</sup> round, controlling all other factors, the probability of being rural to urban migrants is 1.9 times more in SC population while it is 2.16 times more in Others category in comparison to ST population. In 55<sup>th</sup> round, the probability of being rural to urban migrants is 1.5 times more in SC, 1.7 times more in OBC and 1.8 times more in others in comparison to ST social group. The 64<sup>th</sup> round is also showing the same results. Therefore it can be concluded by the above table that in comparison to ST, the SC, OBC and Other social groups are more likely to migrate from rural to urban area.

The odds ratios of currently married and widowed show that probability of being rural to urban migrants is high in these categories in comparison to never married, while the probability of being rural to urban migrants is less in divorced and separated in

comparison to never married as their odds ratio is low. This result is for all the three rounds.

In educational attainment, it has been found by above table that controlling all other factors, the probability of being rural to urban migrants is high in primary, secondary and graduation and above categories in comparison to illiterate. In 49<sup>th</sup> round, the odds ratio of primary and secondary educated is 1.6 while in graduation and above category, it is 1.1, which shows that they have 1.6 and 1.1 more chances to be a rural to urban migrant. In 55<sup>th</sup> round, the probability of being rural to urban migrants is 1.4 times higher in primary educated, 1.5 times higher in secondary educated and 1.0 times higher in graduate and above category in comparison to illiterate. The results from 64<sup>th</sup> round show that in comparison to illiterate, the probability of being rural to urban migrants is 1.4 times more in primary educated and 1.5 times more in secondary educated while the graduate and higher educated have less likely to migrate from rural to urban area.

The odds ratio of various reasons of migration show that in comparison to other reasons (natural calamities, social and political conflicts) of migration, the probability of being rural to urban migrant is high in employment related reason, studies purpose migration and associational migration or migration with parents / earning member of the family while the odds ratio of marriage related migration is less in comparison to others category which show that the probability of being rural to urban migrants is low for marriages migration. All the above results are statistically significant at 0.01 levels. The results of logistic regression support the bi-variate analysis.

### **3.10 Summary and Conclusion:**

This chapter analyzes the socio-economic background and reasons of rural to urban migration in India. The existing literature in migration studies shows that rural to urban migration in India is selective in terms of sex, age, marital status, social groups and income. The present study lends the further support to this proposition. It has been found in the above analysis that rural to urban migration in India is highly selective of adult age-groups in all three distance categories. In social groups, the propensity of intra-district and inter-district rural to urban migration is high in STs and OBC category, while in inter-state migration SCs and Others are more migratory and it is for both sex.

The results of rural to urban migrants by educational attainment show that in intra-district and inter-district male migration, secondary and higher educated people are more migratory while in inter-state migration the tendency to migrate is higher among illiterate and primary educated males. In female category, illiterate and primary educated females are more migratory in all three distance categories. According to marital status, never married and currently married males are more migratory from rural to urban area while in females, tendency of rural to urban migration is high among currently married women.

As far as the monthly per capita consumption expenditure is concerned as a proxy of income, the results show that in intra-district migration and inter-district migration, males in lower MPCE classes are more migratory towards urban centres in comparison to upper MPCE classes while in inter-state migration, males from higher MPCE classes are more migratory. In females only the lower MPCE group is more migratory in all the three distance categories. But with increasing distance the tendency to migrate towards urban centre is increasing in females of high MPCE classes.

The analyses of reasons of migration on the basis of NSS show that employment related migration in male is still the main reason for rural to urban migration while in females marriage migration is the main reason for rural to urban migration. In both sex associational migration (migration with parents or earning member of the family) is the second most important reason for rural to urban migration. The results of logistic regression also support the above socio-economic selectivity in the process of rural to urban migration.

## **CHAPTER 4**

### **RURAL TO URBAN MIGRATION AND ECONOMIC DEVELOPMENT**

#### **4.1 Introduction:**

Migration is an integral part of broader transformation processes embodied in the term of “economic development” but it has an internal, self-sustaining and self-undermining dynamics and it impacts on these broader transformation processes in its own right. Besides a response by individuals and households about these changes in the general context, migration is also a major cause of social, cultural, economic and institutional changes in the local, regional and national development context, in which subsequent decisions on migration and investments are made. Thus, migration is not an independent variable explaining change, but it is an “endogenous” variable which is an integral part of change itself in the same degree and it may enable further change in the process of economic development (De Hass, 2008). Therefore the importance of the inter-relationship between the process of migration and economic development cannot be underemphasized

In developing country like India, the process of rural to urban migration is to a great extent, a result of regional disparity in the levels of economic development. The rapid growth of population in rural areas is putting a lot of pressure on limited land resources and reducing employment opportunities in agriculture sectors which produce a push factor for the rural folks to move towards the urban centres. In due course of time, when the industrialization has started to the major cities in India, people started to move out from rural areas to urban areas in search of jobs in industrial sectors. Urban informal sectors in India are also growing over the time period and it provides jobs to unskilled newly come rural to urban migrants. The development of infrastructure and communication is helping in this process. In the process of economic development in India, historically, some states have high level of economic development while some others are backward and this widespread economic and social imbalance has resulted in a heavy shift of population from backward states like Uttar Pradesh and Bihar to developed states like Maharashtra, Gujarat and Delhi etc.



In this context this chapter firstly deals with the level of economic development in seventeen major states by means of some selected variables like infrastructure, employment rate, state per capita income and industrial growth (net value added in industries) and afterwards it analyzes the interrelationship between rural to urban migration and level of economic development.

#### **4.2 Level of Infrastructural Development in India:**

Rural to urban migration and infrastructure both have a key role to play in economic growth and poverty reduction; therefore they are inter-linked with each other. Depending on the nature of input services, infrastructure can be broadly classified into two groups: physical and social. The physical infrastructure consists of railway, roads, telecommunication, housing, water-supply etc. They work as intermediate inputs in the process of production and improvement in these inputs in any geographical location; attracts additional flow of resources. This raises the productivity of factors of production (capital and labour) and profitability of the producing units. The positive contribution of physical infrastructure to economic growth and development comes through increases in the investment, employment, output and income in a chain of cumulative causation.

Social infrastructure includes education, health, banking and other forms of financial facilities. Their contribution to production activity is although indirect but it has its own significant. For example, education opens up employment opportunities and better health condition increases the productivity of an individual and hence, enhances his earning potentials. Therefore development of infrastructure (physical and social) has a positive effect on employment generation and income opportunities in any area. As a result, an individual migrate to those area where better infrastructure is available (Ghosh, 2003).

In present study, Principal Component Analysis has been used for computing the composite index of Infrastructure development in major states of India. The indicators that have been used to construct the composite index of infrastructure are as follows:

- Road Density per 100 square Km.
- Railway Density per 1000 square Km.
- Annual per capita Electricity Consumption (In KWH).
- Number of Telephone connections per 100 population.

- Number of Schedule Commercial Banks per 100000 population.
- Number of Beds in Government Hospitals per 100000 population.
- Number of Primary School per 100000 population.
- Number of Middle School per 100000 population.
- Number of Colleges per 100000 population.

In the Principal Component Analysis approach, first principal component is the linear combination of weighted facilities, which explains the maximum of variance across the observation at a point in time, therefore in the present analysis first principal component has been taken as composite index of infrastructure for 1993 and 2007. The sum of the three principal components has been taken for 2000 because the percentage of variance is only 41.11 percent in 2000(see Appendix B4.4). The highest Eigen value in 1993, 2000 and 2007 are 4.766, 3.289 and 4.965 respectively which explained 59.58 percent, 41.12 percent and 62.06 percent of variance (see Appendix B4.4).

**Table 4.1 Level of Infrastructure Development across the major States in India**

States	CII1993	Rank	States	CII2000*	Rank	States	CII2007	Rank
Delhi	3.11	1	Kerala	3.30	1	Delhi	3.21	1
W.B.	0.95	2	Punjab	3.08	2	W. B.	1.03	2
Haryana	0.54	3	Gujarat	1.66	3	Kerala	0.93	3
Punjab	0.35	4	T. N.	1.41	4	Bihar	0.20	4
A. P.	0.16	5	Haryana	0.94	5	Assam	0.08	5
U. P.	0.16	6	W. B.	0.90	6	Haryana	-0.12	6
T. N.	0.05	7	Maharashtra	0.34	7	U.P.	-0.17	7
Kerala	0.01	8	Karnataka	-0.36	8	Maharashtra	-0.21	8
Maharashtra	-0.18	9	U. P.	-0.66	9	Gujarat	-0.22	9
Gujarat	-0.23	10	A. P.	-0.72	10	Karnataka	-0.26	10
Assam	-0.25	11	H.P.	-1.15	11	T.N.	-0.26	11
Bihar	-0.33	12	Bihar	-1.38	12	Punjab	-0.38	12
Rajasthan	-0.44	13	Rajasthan	-1.47	13	Rajasthan	-0.45	13
Orissa	-0.60	14	Assam	-1.76	14	Orissa	-0.67	14
Karnataka	-0.82	15	Orissa	-1.87	15	A. P.	-0.70	15
M.P.	-0.84	16	M.P.	-2.24	16	M.P.	-0.78	16
H.P.	-1.66	17				H.P.	-1.24	17

\* Delhi is not included in the composite index of Infrastructure for year 2000. The reasons are discussed in methodology.

Note: The figures of Uttar Pradesh, Bihar and Madhya Pradesh include the figures of Uttaranchal, Jharkhand and Chhattisgarh respectively for year 2007. W.B.- West Bengal, A.P.-Andhra Pradesh, U.P.- Uttar Pradesh, T.N.- Tamil Nadu, H.P.- Himachal Pradesh, M.P.-Madhya Pradesh.

From the table 4.1, it can be observed that in major seventeen states, the highest level of infrastructural development was in Delhi in 1993 followed by West Bengal, Haryana, Punjab and Andhra Pradesh while the lowest level of infrastructural development was in Himachal Pradesh followed by Madhya Pradesh, Orissa, Rajasthan, Bihar and Assam. In 2000, the highest level of infrastructural development was in Kerala followed by Punjab, Gujarat, Tamil Nadu and Haryana. The lowest level of infrastructural development was in Madhya Pradesh followed by Orissa, Assam, Rajasthan, Bihar and Himachal Pradesh in the same period. Delhi shows the highest level of infrastructure in 2007 followed by West Bengal and Kerala while Himachal Pradesh, Madhya Pradesh, Orissa and Rajasthan show low level of infrastructure development in the same period. Over all it can be observed that Delhi, West Bengal and Kerala have high level of infrastructure in all the three period. The index of infrastructure development for Maharashtra, Punjab and Haryana shows fluctuating trends over the time but they have high rank in comparison to Himachal Pradesh, Madhya Pradesh, Orissa and Rajasthan which have low level of infrastructure in all three time periods. This shows that there has been very little investment in the backward states in the field of infrastructure and most of the investments in the infrastructure continue to take place in the developed states.

### **4.3 State wise Per Capita Net State Domestic Product in India:**

The income of any State/Union Territory is estimated by the State Domestic Product which is aggregate money value of all the goods and services produced within the geographical boundary of the state, counted without duplication with reference to a specific time period usually a year. Per Capita Net State Domestic Product or Per capita income of a state is one of the most important indicators to measure the economic development of the State/Union Territory. It is used to determine both absolute and relative performance of the economy of the state and regarded as an important tool to measure regional disparities. It is a suitable measure of the well being of the people. Therefore the Per Capita Income or Per Capita Net State Domestic Product is now frequently used in India by policy makers, planners and administrators.

The per capita income for seventeen major states has been give below in table 4.2. The figures from table 4.2 show that Delhi has highest per capita income in all the three

time period. In 1993-94 and 1999-2000, Punjab has second highest position followed by Haryana and Maharashtra. In 2007, Haryana has second highest position instead of Punjab followed by Kerala, Maharashtra and Gujarat. The lowest per capita income was in Bihar in all the three time period. Uttar Pradesh, Orissa, Madhya Pradesh and Assam are the other states who reports low per capita income. The per capita income in these states is lower than the national average. Over all it can be observed that southern states have high per capita income (above from national average) while most of the northern states have low per capita income except Punjab and Haryana.

**Table 4.2 Per Capita Net State Domestic Product at Factor Cost across the Major States in India (At Constant Prices)\***

States	1993-94	Rank	States	1999-00	Rank	States	2007-08	Rank
Delhi	29450	1	Delhi	38913	1	Delhi	60189	1
Punjab	21998	2	Punjab	25631	2	Haryana	39462	2
Haryana	19332	3	Haryana	23222	3	Kerala	33372	3
Maharashtra	18375	4	Maharashtra	23011	4	Maharashtra	33302	4
Kerala	14895	5	H.P.	20806	5	Gujarat	31780	5
H.P.	14817	6	Kerala	19461	6	Punjab	31662	6
Tamil Nadu	14302	7	Tamil Nadu	19432	7	H.P.	30519	7
Gujarat	13896	8	Gujarat	18864	8	Tamil Nadu	29445	8
Karnataka	12572	9	Karnataka	17502	9	Karnataka	26418	9
Assam	12133	10	West Bengal	15888	10	A.P.	26229	10
A.P.	12113	11	A.P.	15427	11	West Bengal	23456	11
West Bengal	11517	12	Rajasthan	13619	12	Rajasthan	18769	12
M.P.	10210	13	Assam	12282	13	Orissa	17352	13
Rajasthan	9841	14	M.P.	12188	14	Assam	15526	14
Orissa	9057	15	Orissa	10622	15	M.P.	14704	15
U.P.	8907	16	U.P.	9933	16	U.P.	12489	16
Bihar	6388	17	Bihar	7211	17	Bihar	10399	17
India	12126		India	15881		India	24295	

\*All values are at 1999-2000 prices.

Note: The figures of Uttar Pradesh, Bihar and Madhya Pradesh included the figures of Uttaranchal, Jharkhand and Chhattisgarh respectively. H.P.- Himachal Pradesh, A.P.-Andhra Pradesh, M.P.-Madhya Pradesh, U.P.-Uttar Pradesh

Source: Calculated on the basis of CSO data.

The high per capita income in Delhi, Punjab, Haryana, Maharashtra, Kerala and Gujarat shows that these are economically developed states while low per capita income in Bihar, Uttar Pradesh, Madhya Pradesh and Orissa show that they are less developed states. The

analysis of the rural to urban migrants in major states in India in chapter two (Table 2.6 and 2.7) and the above table show that high rural to urban migration is found in those states which have high per capita income like Punjab, Haryana, Maharashtra and Gujarat while states with low per capita income like Bihar, Uttar Pradesh, Madhya Pradesh have low rural to urban migration rate. Therefore the state per capita income is interlinked with the process of rural to urban migration. The existing literature (Kundu and Gupta, 1996; Bhagat, 2009) also supports this inter-relationship.

#### **4.4 Labour Productivity in Industrial Sectors in India:**

Labour productivity in industrial sectors is a key feature of economic development and it affects the process of rural to urban migration. In the process of economic development, as Kuznets (1966) highlighted, a structural transformation takes place from agriculture sector to manufacturing and services sector both in terms of value added and work force structure, and this also involves a location shift of population from rural to urban areas. In India, labour productivity is higher in the modern industries - largely located in the urban areas – rather than in the rural-based agricultural sector therefore the per-capita income also tends to be higher in the urban areas (Bhanumurthy and Mitra, 2003) and it increases the inequality between rural and urban areas. After economic reforms, this inequality has been increased with economic growth; therefore now rural person is forced to migrate towards the urban centre. The high labour productivity in modern industries also creates a demand for more labour over the time and this results into more rural to urban migration. In the present study, net value added (henceforth NVA) per worker in industrial sector has been taken as a measure of labour productivity. In table 4.3, the labour productivity of seventeen major states has been given in descending order. All the values are calculated from the data provided in the reports of Annual Survey of Industries. In 1993-94, Bihar has highest labour productivity (2.56 lakh NVA per worker) followed by Maharashtra (2.29 lakh NVA per worker), Himachal Pradesh (2.10 lakh NVA per worker) and Madhya Pradesh (1.73 lakh NVA per worker). The lowest labour productivity was in Andhra Pradesh (0.68 lakh NVA per worker) followed by Kerala (0.73 lakh NVA per worker), Punjab and Assam (both 0.91 lakh NVA per worker). In

seventeen major states, only six states have high labour productivity from the national average.

In 1999-2000, the labour productivity in industrial sector in India increased from 1.33 lakh NVA per worker to 2.47 lakh NVA per worker. In this period, Maharashtra reports the high labour productivity which increased from 2.29 lakh NVA per worker (1993-94) to 4.05 lakh NVA per worker. Bihar has second position with 3.97 lakh NVA per worker which also shows an increase from 1993-94. Himachal Pradesh, Delhi

**Table 4.3 Labour Productivity in Industrial Sector in term of Net Value added Per Worker (in Rs. Lakhs) in the major States of India:**

State	NVA per Worker (1993-1994)	Rank	State	NVA per Worker (1999-2000)	Rank	State	NVA per Worker (2007-2008)	Rank
Bihar	2.56	1	Maharashtra	4.05	1	H.P.	15.61	1
Maharashtra	2.29	2	Bihar	3.97	2	Bihar	12.11	2
H.P.	2.10	3	H.P.	3.62	3	Maharashtra	11.60	3
M.P.	1.73	4	Delhi	3.42	4	Orissa	9.30	4
Gujarat	1.66	5	Gujarat	3.14	5	M.P.	9.22	5
Delhi	1.38	6	Haryana	3.02	6	Gujarat	7.79	6
Rajasthan	1.28	7	Rajasthan	3.00	7	Karnataka	6.10	7
Karnataka	1.23	8	M.P.	2.91	8	U.P.	4.95	8
Orissa	1.22	9	Orissa	2.68	9	Haryana	4.56	9
Tamil Nadu	1.11	10	U.P.	2.36	10	Rajasthan	4.40	10
Haryana	1.02	11	Karnataka	2.26	11	Delhi	4.09	11
U.P.	0.96	12	Punjab	2.11	12	A.P.	3.65	12
West Bengal	0.94	13	Assam	1.78	13	West Bengal	3.36	13
Assam	0.91	14	Tamil Nadu	1.67	14	Punjab	3.25	14
Punjab	0.91	15	Kerala	1.41	15	Tamil Nadu	3.07	15
Kerala	0.73	16	West Bengal	1.24	16	Assam	2.89	16
A.P.	0.68	17	A.P.	1.18	17	Kerala	1.92	17
India	1.33		India	2.47		India	5.87	

Source: Computed by the figures given in the reports of Annual Survey of Industries.

Note: The figures of Uttar Pradesh, Bihar and Madhya Pradesh include the figures of Uttaranchal, Jharkhand and Chhattisgarh respectively.

H.P. - Himachal Pradesh, M.P.-Madhya Pradesh, U.P.-Uttar Pradesh, A.P.-Andhra Pradesh.

Gujarat, Haryana, Rajasthan, Madhya Pradesh and Orissa are the other states which have labour productivity above from the national average. The lowest labour productivity is again in Andhra Pradesh with 1.18 lakh NVA per worker. West Bengal (1.24 lakh NVA

per worker) and Kerala (1.41 lakh NVA per worker) are the other states which report lower labour productivity in industrial sectors.

In 2007-08, labour productivity in industrial sector in India has increased to 5.87 lakh NVA per worker. Himachal Pradesh reports highest labour productivity with 15.61 lakh NVA per worker. Bihar has the second position with 12.11 lakh NVA per worker. Maharashtra, Orissa, Madhya Pradesh, Gujarat and Karnataka are the other states which have labour productivity above from national average. Kerala has 1.92 lakh NVA per worker which is lowest among the seventeen states. Assam, Tamil Nadu and Punjab are the other states which show lower labour productivity. In 2007-08, condition of labour productivity has improved in Andhra Pradesh. It has increased from 1.18 lakh NVA per worker (1999-2000) to 3.65 lakh NVA per worker but still it is low from the national average.

#### **4.5 Econometric Framework:**

In the present study, to establish the relationship between the process of rural to urban migration and economic development in India, Ordinary Least Square (OLS) regression model has been used. In this model cross-sectional data has been used in which all the variables (dependent variable and independent variable) are collected for the same time period of 1993-94, 1999-2000 and 2007-08. Two separate models have been used in this study: in first model Inter-state Rural to Urban Male Migration is dependent variable and in second model Inter-state Rural to Urban Total Migration have been used as a dependent variable. Level of Infrastructural Development, Per Capita Net State Domestic Product and Per worker Net Value Added are the variables which have been used as dependent variables. The function of this model is as follows:

#### **The function:**

In the functional form, Inter-state Rural to Urban Male Migration / Inter-state Rural to Urban Total Migration is considered a function of three explanatory variables: Natural Log value of Per Capita Net State Domestic Product, Per worker Net Value Added in Industrial Sector and Level of Infrastructural Development.

- (1)  $ISRUMMIG = f(\ln PCNSDP, PWNVA, CII)$ ,  
 (2)  $ISRUTMIG = f(\ln PCNSDP, PWNVA, CII)$

Where, ISRUMMIG stands for Inter-State Rural to Urban Male Migration,  
 ISRUTMIG stands for Inter-State Rural to Urban Total Migration,  
 ln PCNSDP stands for Natural Log of Per Capita Net State Domestic Product,  
 PWNVA stands for Net Value Added Per Worker in Industrial Sector and  
 CII stands for the Composite Index of Infrastructure Development.

### **OLS Regression Model:**

The structural equations for the OLS regression model used in the analysis are following:

$$ISRUMMIG = \beta_0 + \beta_1 \ln(PCNSDP) + \beta_2 PWNVA + \beta_3 CII + u_i$$

$$ISRUTMIG = \beta_0 + \beta_1 \ln(PCNSDP) + \beta_2 PWNVA + \beta_3 CII + u_i$$

Where, ISRUMMIG stands for Inter-State Rural to Urban Male Migration,  
 ISRUTMIG stands for Inter-State Rural to Urban Total Migration,  
 ln PCNSDP stands for Natural Log of Per Capita Net State Domestic Product,  
 PWNVA stands for Net Value Added Per Worker in Industrial Sector and  
 CII stands for the Composite Index of Infrastructure Development.

$u_i$  stands for error terms.

The dependent variable, Per Capita Net State Domestic Product is transformed, by taking its natural log (based on HDI methodology) because the range of PCNSDP is too wide from 10000 to 60000, which would not have explained a significant variation if the natural log has not taken because there is very marginal difference in the minimum and maximum values of independent variables as compared to the range of PCNSDP.



## **4.6 Rural to Urban Migration-Empirical Results:**

Studies in migration show that process of rural to urban migration is always guided by the economic development. In this context, to understand the interrelationship between rural to urban migration and economic development, regression analysis has been done by the above model. The explanation of the results is divided in two parts based on the dependent variables (Inter-State Rural to Urban Male Migration and Inter-State Rural to Urban Total Migration):

### **4.6.1 Inter-State Rural to Urban Male Migration and Economic Development:**

The regression results from the table 4.4 show that there is a positive relationship between Inter-state Rural to Urban Male Migration and indicators of economic developments (Per Capita NSDP, Per worker Net Value Added in industrial sector and Composite Index of Infrastructure) because all the coefficients of explanatory variables have positive sign. In the interpretation of regression estimates, the coefficient of Per Capita Net State Domestic Product is divided by 100 because the log value has been taken for PCNSDP. The estimated results suggest that in 1993-94, if the Per Capita Net State Domestic Product goes up by one unit, on average, the rate of inter-state Rural to Urban Male Migration will increase by 0.06 percent and this result is significant at 5 percent level of significance.

In the same year, the unit change in Per Worker Net Value Added and Composite index of Infrastructure will increase the rate of Inter-State Rural to Urban Male Migration, on average, to 2.62 and 3.99 percent respectively, results are significant at 10% and 1% level of significance. The value of R-square shows that this model explains the 79.6 % variation in Inter-State Rural to Urban Male Migration which is better. The F-Test indicates that the model is significant ( $p < 0.001$ ).

**Table 4.4 Regression Estimates for Inter-State Rural to Urban Male Migration**

Independent Variables	Inter-State Rural To Urban Male Migration Rate (Dependent Variable)		
	1993-94	1999-2000	2007-08
In Per Capita Net State Domestic Product (PCNSDP)	6.054(2.506)**	7.916(2.904)***	8.160(3.561)***
Per Worker Net Value Added in Industrial Sector	2.620 (1.846)*	1.799(2.251)**	0.476(1.823)*
Composite Index of Infrastructure	3.988 (4.304)***	0.142(0.243)	2.991(2.690)***
Constant	-56.444 (-2.450)**	-76.786 (-2.944)***	-79.393(-3.407)***
R-Square	0.796	0.643	0.711
Adjusted R-Square	0.748	0.554	0.645
F-Statistics	16.869***	7.217***	10.678***
Number of Observations	17	16	17

*Note: The T-statistics are presented in parentheses and \*\*\*, \*\*, and\* implies the statistical level of significance at 1%, 5% and 10% respectively.*

In 1999-2000, the regression results show that if Per Capita Net State Domestic Product goes up by one unit, on average, the rate of Inter-State Rural to Urban Male Migration will increase by 0.08 percent and this result is statistically significant at 1 % level. The unit change in Per Worker Net Value Added and Composite Index of Infrastructure will increase the Inter-State Rural to Urban Male Migration Rate, on average, up to 1.80 percent and 0.14 percent respectively but the result is significant only for the labour productivity, at 5 % level. The value of R-square shows that this model explains the 64.3 % of variation in Inter-State Rural to Urban Male Migration which is moderate. The F-test also indicate that the model is significant ( $p < 0.001$ ).

In 2007-08, the regression results are better in comparison to 1993-94 and 1999-2000. Results from table 4.4 show that if Per Capita Net State Domestic Product goes up by one unit, the rate of Inter-State Rural to Urban Migration, on average, will increase by 0.08 percent and this result is significant at 1 % level. In the same year, a unit change in Per Worker Net Value Added and Composite Index of Infrastructure will increase the rate of Inter-State Rural to Urban Male Migration on the average up to 0.47 % and 2.99 % respectively, results are significant at 10% and 1% level of significance. The R-square shows that this model explains 71.1 % variation in Inter-State Rural to Urban Male

Migration which is better. The F-statistics also indicate that model is significant (p<0.001).

#### **4.6.2 Inter-State Rural to Urban Total Migration and Economic Development:**

The regression estimates for the Inter-State Rural to Urban Total Migration show that in 1993-94, if Per Capita Net State Domestic Product goes up by one unit, on average, the rate of Inter-State Rural to Urban Total Migration will increase about 0.06 percent and this result is significant at 5 % level of significance. A unit change in Per Worker Net Value Added and Composite index of Infrastructure will increase the rate of Rural to Urban Total Migration on the average to 2.6 % and 3.2 % respectively and the results are statistically significant at 10% and 1% level of significance. The R-square for the same year shows that model explains the 75% variation in the Inter-State Rural to Urban Total Migration and F-statistics shows that model is highly significant (p<0.001)

**Table 4.5 Regression Estimates for Inter-State Rural to Urban Total Migration**

Independent Variables	Inter-State Rural To Urban Total Migration Rate (Dependent Variable)		
	1993-94	1999-2000	2007-08
<b>In Per Capita Net State Domestic Product (PCNSDP)</b>	6.001 (2.509)**	7.683(2.964)***	7.222(3.206)***
<b>Per Worker Net Value Added in Industrial Sector</b>	2.568(1.828)*	1.832(2.411)**	0.496(1.934)*
<b>Composite Index of Infrastructure</b>	3.226(3.516)***	0.052(0.094)	3.072(2.811)***
<b>Constant</b>	-56.094(-2.459)**	-74.724(-3.013)***	-70.287(-3.069)***
<b>R-Square</b>	0.75	0.647	0.694
<b>Adjusted R-Square</b>	0.693	0.559	0.623
<b>F-Statistics</b>	13.025***	7.340***	9.823***
<b>Number of Observations</b>	17	16	17

*Note: The T-statistics are presented in parentheses and \*\*\*, \*\*, and\* implies the statistical level of significance at 1%, 5% and 10% respectively.*

In 1999-2000, the regression estimates show that if Per Capita Net State Domestic Product changes by one unit, the rate of Rural to Urban Total Migration will increase on the average by 0.077 % and this result is significant at 1% level of significance. In the same year, a unit increase in Per Worker Net Value Added in Industrial Sectors and

Composite Index of Infrastructure will increase the rate of Rural to Urban Total Migration on the average to 1.8 % and 0.05 % but the result is significant only for the labour productivity. The value of R-square shows that model explains 64.7 % variation in the rate of Rural to Urban Total Migration. The F-test also shows that model is statistically significant at 1% level of significance.

The regression results for 2007-08 show that one unit change in Per Capita Net State Domestic Product will increase the rate of Rural to Urban Total Migration on an average by 0.072 % and this result is statistically significant at 1% level. In the case of Per Worker Net Value Added in industrial sector and Composite Index of Infrastructure, if these independent variables change by one unit, the rate of Rural to Urban Migration will be changed on the average by 0.49 % and 3.1% respectively and these results are statistically significant at 10% and 1% level of significance. The R-square shows that model explains 69.4 % variation in the rate of Rural to Urban Total Migration which is good and the F-statistics shows that model is statistically significant ( $p < 0.001$ ).

Over all, it can be easily observed that the coefficients of Per Capita Net State Domestic Product, labour productivity and composite index of infrastructure are statistically as well as economically significant in all the three period for both model, it shows that these are important variables and play positive roles in the process of Rural to Urban Migration. Greenwood in his study (1997) also stated that the per capita income is one of the most representative macro-economic variables responsible for migration of people from low developed areas to high developed areas for the means of more activities, services and opportunities.

#### **4.7 Summary and Conclusion:**

The present chapter tries to find out the interrelationship between rural to urban migration and economic development. The foregoing analysis of this chapter reveals that widespread disparities exist among the seventeen major states in term of the level of economic development. In all the three time periods, some states have high level of infrastructure, Per Capita Net State Domestic Product (PCNSDP) and high labour productivity while others are far away. The level of infrastructure is high in Delhi, Punjab, Haryana, Gujarat and Kerala for all the three time periods while Madhya Pradesh and Himachal Pradesh show low level of infrastructure development. One interesting

finding is that in last period 2007-08, some states like Bihar and Uttar Pradesh show better level of infrastructure which can be responsible for the increasing intra-state rural to urban migration in these states ( see Table 2.6 and Table 2.7).

The high per capita net state domestic product is in Delhi, Punjab, Haryana, Maharashtra and Gujarat which show that they are economically developed states while the low per capita net state domestic product in Bihar, Uttar Pradesh, Madhya Pradesh and Assam show that they are economically backward states. The difference between developed states and less developed states in term of PCNSDP is very much and it is increasing with the time period. This is the main reason of rural to urban migration from backward states to developed states (Bhagat, 2009)

The consistency in labour productivity is found in Maharashtra, Bihar (Jharkhand included for 1999-2000 and 2007-08), Himachal Pradesh and Gujarat. The lowest labour productivity is in Andhra Pradesh but it improves in 2007-08. Kerala and Assam are the other states which have low labour productivity. The analysis of three variables of economic development shows that Delhi, Maharashtra, Gujarat, Haryana are the states which have high rank in all the three indicators while Uttar Pradesh, Bihar have low level of economic development but with the time of period they are improving.

From the analysis of rural to urban migration in India (Chapter two) it can be easily identified that states with high level of development (Maharashtra, Gujarat, Haryana, Himachal Pradesh) have high rate of rural to urban migration. In opposite, states with low level of development (Uttar Pradesh, Bihar, and Madhya Pradesh) have low rural to urban migration rates. The estimates from the OLS regression models also support that rural to urban migration (inter-state) is highly linked with the economic development. The positive sign of coefficients indicate that there is a positive relationship between inter-state rural to urban migration (male and total) and per capita net state domestic product, per worker net value added and composite index of infrastructure. In all the three time period, the high value of R square and Adjusted R square (the measure of goodness fit) for both the equations are quite high reasonable with high significant level of F-statistics and it indicates that model is fit for the analysis. Thus it can be concluded that Inter-State Rural to Urban Migration in India is still guided by the economic development.

## CHAPTER 5

### SUMMARY AND CONCLUSION

The dynamics of population change is regulated by fertility, mortality and migration. Fertility and mortality largely operate within the biological framework through social, economic and cultural factors. Migration, on the other hand, is purely a socio-economic phenomenon involving social, psychological, economic, political, institutional and other such determinants. In most population analyses, the study of fertility and mortality is usually given top priority, but in all the cases where it is not possible to achieve population stability or a reduction in the size of population through fertility and mortality control in the short term, the alternative is undoubtedly migration. As Bogue (1969) points out-“if the problem of human fertility is not so critical at the present time, it is almost certain that human migration and the plight of migrants (especially in developing countries) would be listed as a top priority problem of research and action”.

The most dramatic phenomenon of second half of twentieth century is rapid urbanization and economic development in developing countries. In this process rural to urban migration is playing very crucial role. Therefore Rural to Urban Migration and its effect on socio-economic, demographic and cultural factors has recently attracted increasing attention from administrators, planners, social scientists and researchers. In India, the existing literature suggests that rural to urban migration has not been explored as extensively as certain other demographic phenomena because of the general belief that India has a traditional society with a relatively immobile population. In this context, the present study is a modest endeavor to fill some gaps in the area of migration studies in India.

The main objective of this study is to find out the spatio-temporal changes in rural to urban migration in India after economic reforms and to analyze the changing background characteristics of the rural to urban migrants and their reason of migration over the time period. Further, the study targets to achieve its objective of establishing a relationship between the two important variables of regional development i.e., rural to urban migration and level of economic development. The present study is entirely based on migration data of 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> round of National Sample Survey. Although the detailed finding of this work have been discussed at the end of each chapter, it is useful to

present a bird's eye view upon some of the major findings to offer a synthesized view of facts and arguments developed in this work.

The first chapter starts with a brief introduction to the field of migration studies followed by statement of the problem. The chapter also incorporates the survey of literature on the thematic basis. Further, it includes the objectives, research questions, data base, methodology, conceptual framework and organization of chapters. All these are the base of this study. The analyses of rural to urban migration in India starts with the second chapter, in which temporal changes in internal migration in India is discussed in general and trends and regional patterns of rural to urban migration is discussed in particular. The analyses from the migration data of Census of India (1971-2001) shows declining trend in internal migration till 1991 but there is significant increase in internal migration during 1991-2001. The further analysis with the help of NSS 49<sup>th</sup>, 55<sup>th</sup> and 64<sup>th</sup> rounds supports the increasing trends. The increasing internal migration can be linked with economic reforms because the process of economic reforms in India is breaking the economic barriers and making the national production system as a part of global economy. This results more investment in industrial and infrastructure sector which generate more employment in urban centres and this would accelerate the process of rural to urban migration.

In the same chapter, the spatial patterns of urban migrants have been discussed separately for both sexes. The pattern of urban male migrants show that in north-eastern state urban male migration are very low except Nagaland and Sikkim and this could be explained by the low economic development in these states. Some states like Assam, Sikkim and Nagaland have better condition because in the last decade of 20<sup>th</sup> century the urbanization levels in these states has gone up. The key contributory factors are various projects initiated by State and Central governments and the role of missionaries in creating educational infrastructure.

In northern states an uneven distribution of urban male migrants has been found as some states like Haryana, Delhi, Chandigarh and Himachal Pradesh have high urban male migration while Uttar Pradesh, Bihar, Jammu and Kashmir, and Madhya Pradesh show low level of urban male migration. The high regional disparity in terms of infrastructural development for industrial settings and economic development is the main cause of it.

There are some states like Gujarat and Haryana, in which urban male migration rate is increasing over the time period which could be explained by the massive public investment and the creation of new jobs in industries and business. In the southern part of country, Maharashtra has consistency in urban male migration rate over the time period. This can be explained by the history of developmental process in India, in which Maharashtra has always a central place because of its capital 'Mumbai', which is known as the economic capital of India. After economic reforms, many MNCs established their offices in Maharashtra, therefore the urban informal sector is growing very rapidly in Maharashtra and which attract the poor rural migrants of Uttar Pradesh and Bihar to migrate towards Maharashtra. In this process, the kinship and networking is playing an important role. Other southern states have low urban male migration rate in comparison to Maharashtra, Haryana and Gujarat.

The urban female migration is still caused by marriages and associational migration or migration with the earning member of family. The findings suggests that northern states show high urban female migration in comparison to southern states because of the different kind of social customs practices in Northern and Southern parts of India. In northern states Uttar Pradesh, Haryana, Punjab, Himachal Pradesh, West Bengal and Madhya Pradesh have high female migration in urban areas because in this region, village exogamy has been practiced in which marriages are mostly outside of the native place. In opposite, in southern states of India like Karnataka, Tamil Nadu and Kerala, the cross-cousin marriages have been practiced and therefore the urban female migration rate is low in these states. Maharashtra is one state which show high urban female migration rate in all three time periods and it can be linked with the associational migration in which most of the womenfolk from Uttar Pradesh and Bihar come with husband and stay in urban slums.

The analyses of the streams of migration show that after economic reforms, the share of different streams into total internal migration has been changing for all three distance categories and it is for both sexes. The proportion of all time dominating stream in India, rural to rural migration, has been declined in all three distance categories over the time period especially for male. With the increasing distance, the share of rural to rural migration is decreasing both for male and female and for inter-state migration



category its percentage share to total internal migration is less than rural to urban migrants, the reason can be explained by the sluggish growth in agricultural productivity and non-farm employment sectors in India. In opposite, the share of rural to urban migrants in total internal migration has been increasing over the time. In comparison to intra-district category it is increasing more in inter-district and inter-State categories. The main reason can be partly explained by the improvement in the transport and communication after economic reforms which boost the inter-district and inter-state rural to urban migration. The second reason can be the increasing regional disparity between rural and urban area in terms of job opportunities, education and health facilities which results the increasing inter-district and inter-state rural to urban migration and decreasing intra-district rural to urban migration.

The analyses of all four streams show that share of urban to urban migration is also increasing in inter-district and inter-state categories over the time period because of the availability of high education institution in some big cities and availability of high paid jobs in metropolitan cities which motivates the urban dwellers to migrate over long distance. Following to these trends, it can be concluded that long distance (inter-district and inter-state) rural to urban and urban to urban migration streams are likely to emerge as dominant migration streams in future.

The spatio-temporal analysis of rural to urban male migration shows that in intra-district category, Andhra Pradesh has highest rural to urban male migration in all the three rounds. Maharashtra, Orissa, Himachal Pradesh, Karnataka and Sikkim are the other states which have high rural to urban intra-district male migration rate. The low rural to urban intra-district male migration is in Punjab, Haryana and West Bengal. In inter-district category, the high rural to urban male migration rate is in Himachal Pradesh, Maharashtra, Orissa and Andhra Pradesh while low rural to urban male migration rate is in Uttar Pradesh, Bihar and Punjab. In inter-state category, Haryana, Maharashtra, Punjab and Gujarat are the states which have high rural to urban male migration over the time of period. Bihar has lowest inter-state rural to urban migration in this category followed by Tamil Nadu, Andhra Pradesh and Uttar Pradesh. Over all it can be easily found out that rural to urban male migration rate in India is increasing especially in inter-state category which shows that due to development of transport and communication

facilities rural migrants prefer to migrate towards large metropolitan cities in search of their fortune.

An interesting finding is that most of the states who always have high rural to urban male migration like Haryana, Maharashtra, Orissa, Madhya Pradesh show declining trends over the time period but the state with low rural to urban male migration like Uttar Pradesh, Bihar, Punjab, Gujarat and Andhra Pradesh show increasing trends. Some small states like Himachal Pradesh and Sikkim has high rural to urban male as well as female migration over the time period in all three distance categories and it can be attributed to the massive government efforts for the developing of the urban infrastructure and basic services in these states.

In the case of females, rural to urban migration rate is high in intra-district category in comparison to inter-district and inter-state category. Most of the major states show high rural to urban female migration rate in intra-district category but increasing the distance the rate is declining except Maharashtra and Haryana which have high female rural to urban migration in all distance categories. The main reason behind this is the marriage customs in India, in which most of the females are married within the states. The high rural to urban migration in Maharashtra and Haryana is attributed to the associational migration. Over all the result suggests that female rural to urban migration in India is increasing after economic reforms in all the states.

The third chapter analyzes the socio-economic background and the reasons of rural to urban migration in India for both sexes. The existing literature in migration studies suggests that rural to urban migration in India is highly selective in terms of sex, age, marital status, social groups and income. The present study lends the further support to this proposition. In the case of age, rural to urban migration in India is highly selective for adult age-groups in all three distance categories. The age-groups 15-29 and 30-44 have high proportion among all age-groups. The reasons are different for males and females. Most of the males in these age-groups migrate because of the work, employment and studies purpose while female migration in these age-groups is because of marriages and associational migration.

The caste system in rural India imposes certain restrictions to its members in the matter of social intercourse and therefore the decision process of the rural to urban migration is

affected by the caste system (Dubey et al, 2004). The results of rural to urban male migration by caste show that in intra-district rural to urban male migration the propensity to migrate is high among STs followed by OBCs and it is increasing over the time. It is because the process of rural to urban migration is highly expensive and the rural people from these castes are still very poor in most part of the country, so they migrate near by town.

In intra-district rural to urban male migration, SCs have less percentage and it can be explained by the structure of the Indian rural society in which there are some people who have a lot of land and known as 'Landlord', they generally feed, give clothes and daily wages to the agricultural labourers from SCs caste to insure that they will not leave the house of the landlord until they do not get a better opportunities in urban areas (Banerjee, 1986 and Kothari, 1980 as quoted in Yadava, 1989). In opposite, the propensity of inter-state male migration is high among SCs and Others group. The reasons are different for both, the SCs migrate to urban centres because they are generally landless, uneducated and poor and for them it is a livelihood strategy, in opposite the people from Others caste migrate for the better education and better employment.

In female, STs and SCs have high propensity to migrate from rural to urban areas in all three distance categories, but with increasing distance the rate of each group is decreasing which show that female migration is still short distance migration. The main reason for the differences of rural to urban female migration among social groups is various social norms about the marriages followed by these social groups in Indian rural society.

Education plays a vital role in determining the migratory tendency of a society. A number of rural to urban migration studies in India has shown a positive relationship between the rates of rural to urban migration and the level of education attained by migrants. This study shows that in intra-district and inter-district rural to urban male migration, the high propensity to migrate is in secondary and graduation and above category while in inter-state category, illiterate, primary and secondary educated male show high propensity to migrate from rural to urban areas in comparison to graduate male. It is because after the economic reforms, the job profile is changing very fast in large cities; therefore the recruitment of the educated manpower in large cities is more from the city dwellers inspite of rural graduate. Therefore the secondary and graduate rural male prefers nearest

town to do the same kind of jobs and capital cities and some class-I towns are providing them the suitable jobs. In opposite, the dependency for illiterate manpower in large cities is however similar and therefore the migration of illiterate, primary and secondary educated rural male is still high in inter-state migration (Kundu and Mohanan, 2009). In female, the rural to urban migration is high among illiterate and primary educated in all three distance categories which show the poor educational status of female in India.

In the context of marital status, it has been found that currently married rural to urban male migrants has high proportion in all three distance categories. The reason can be explained by the Indian social custom, in which after marriage males have to bear more responsibilities and therefore they have to earn for their family. In this process they migrate more towards the urban centres in search of employment. The current finding supports the existing literature in which it has been found that currently married migrants are more prone to migrate towards the urban centers (Zachariah, 1968; Singh, 1985). Over the time of period the second high proportion is in never married category in all three distance categories. In this category most of the migrants are in lower age-groups and their migration is associational migration. The rural to urban migration among female is high among currently married women in all three distance categories which shows that marriages are still a main cause for rural to urban female migration. Never married and widowed are the other categories, which have high proportion in rural to urban female migration in all three distance categories but their migration is generally associational migration.

As far as the monthly per capita consumption expenditure is concerned as a proxy of income, the results show that in intra-district migration and inter-district migration, males in lower MPCE classes are more migratory towards urban centers in comparison to upper MPCE classes while in inter-state migration, males from higher MPCE classes are more migratory. The reasons can be explained by the cost-benefit analysis, in which males from lower MPCE group cannot afford to migrate towards longer distance because of the high expenditure therefore their proportion is high in short-distance migration. In female only the lower MPCE group is more migratory in all three distance categories. But with increasing distance the tendency to migrate towards urban centre is increasing in female of high MPCE classes

. The analysis of reasons of migration supports the existing literature and shows that in male, employment related migration is still have dominance to the other reasons of migration while in female; marriage migration is still the main reason for rural to urban migration. In both sexes associational migration (migration with parents or earning member of the family) is the second most important reason for rural to urban migration. The results of logistic regression support the above socio-economic selectivity in the process of rural to urban migration.

In forth chapter, analysis of the inter-relationship between rural to urban migration and economic development has been done for the seventeen major states. For this analysis, a cross-sectional data of three most important development indicators (level of Infrastructure, Per Capita Net State Domestic Product and Per Worker Net Value added in Industrial Sectors) has been used with the inter-state rural to urban migration. This analyses reveals that there are wide spread disparities that exist among the seventeen major states in term of the level of economic development. In all the three time periods, some states (Maharashtra, Gujarat, Haryana and Himachal Pradesh) have high level of development while other states (Uttar Pradesh and Bihar) are still backward in terms of these development indicators.

Two separate OLS regression models have been used to find out the inter-relationship between rural to urban migration and economic development; in first- rural to urban male migration has been used as dependent variable and in second- rural to urban total migration has been used as dependent variable. The estimates from both the OLS regression models also support that rural to urban migration (inter-state) in India is highly linked with the economic development. The positive sign of coefficients indicate that there is a positive relationship between inter-state rural to urban migration (male and total) and per capita net state domestic product, per worker net value added and composite index of infrastructure. The high value of R square and Adjusted R square (the measure of goodness fit) for both the equations are quite high, reasonable with high significant level of F-statistics and it indicates that model is fit for the analysis in all the three time periods. Thus it can be concluded that Inter-State Rural to Urban Migration in India is still guided by the economic development.

In summing up, it can be said that the study based on the secondary sources of information which is sample based, always have certain limitations and one cannot draw any in-depth details of the migrant's choice, spontaneity and constraints in relocating a new place. Such insights are lacking in the present study but besides these limitations, this study is an attempt to bring out the changing dimensions of rural to urban migration after economic reforms in terms of trends, regional patterns and their socio-economic attributes. At the same time the study focuses on the broad structural approach of development from which the rural migrants are pulled into core areas from the peripheral zones. Although this study brings out several issues in the process of rural to urban migration in India that have been discussed and debated in the literature of migration studies but for the micro-level analysis, field-level substantiation is always required.

# References

## Books and Articles:

Agrawal, B (1990): "Gender and Land Rights in Srilanka", Working Paper No. WEP 10/WP 49 (Geneva: World Employment Programme Research ILO).

Banerjee, A (2007): Women Migrants in Urban India with reference to Madhya Pradesh and Maharashtra, Unpublished dissertation, (New Delhi: Centre for the Study of Regional Development, Jawaharlal Nehru University), India.

Bhagat, R B (2009): "Internal Migration in India: Are the Underclass More Mobile?", Paper Presented in the 26th IUSSP General Population Conference held in Marrakech, Morocco, 27 September- 2 October 2009.

Bhagat, R B and S Mohanty (2009): "Emerging Patterns of Migration and Contribution of Migration in Urban Growth in India", *Asian Population Studies*, Vol.5, No.1, March 2009.

Bhanumurthy, N R and A Mitra (2003): "Declining Poverty in India: A Decomposition Analysis" downloaded from <http://www.iegindia.org/workpap/wp248.pdf> dated 14.07.2011.

Bhatt, P N Mari and A J Francis Xavier: "Fertility Decline and Gender Bias in Northern India, Paper Presented in IUSSP Conference, Brazil, 2001.

Bhinde, A and T Kanitkar (2010): *Principal of Population Studies*, (Mumbai: Himalaya Publishing House), p.-363.

Bogue, D J (1969): *Principles of Demography*, (New York: John Wiley Publication).

Bulsara, J F (1964): *Problems of Rapid Urbanization in India*, (Mumbai: Popular Publication), pp. 37-38.

Cassen, R H (1978): *India: Population, Economy and Society*, (New York: MacMillan Press).

Chandrasekhar, S (1950): *India's Population: Fact and Policy*, (Tamil Nadu: Indian Institute for population studies, Annamalai University).

Chatterjee, S N (1991): *Poverty, Inequality and Circulation of Agricultural Labourers*, (Delhi: Mittal Publication), p.-29.

- Connel et al (1978): *Migration from Rural Areas: the Evidences from Villages Studies*, (London: Oxford University Press).
- Dasgupta B (1979): 'Migration and rural employment', in *Land Reform: Land Settlement and Co-operatives*, No. 1, FAO, Rome, pp.-23-34.
- Davis, K. (1951): *The Population of India and Pakistan*, (New Jersey: Princeton University Press).
- De Hass, Hein (2008): "Migration and Development: A Theoretical Perspective", Working Paper No. 9, IMI, (London: Oxford University Press), p.-13.
- Demko, G J et al (1970): "Spatial Patterns of Population Flow", in *Population Geography: A Reader*, (New York: McGraw Hill Book Co), p.1.
- Deshingkar, P and S Akter (2009): "Migration and Human Development in India", Human Development Research Paper 2009/13, (New York: United Nations Development Programme).
- Dubey et al (2004): "Surplus Labour, Social Structure and Rural to Urban Migration: Evidences from Indian Data "Paper Presented in the Conference on the 50<sup>th</sup> anniversary of the Lewis Model, July 6-7, 2004.
- Ghatak, S et al (1996): "Migration Theories and Evidence: An Assessment", *Journal of Economic Survey*, Vol.10, Issue 2, pp.-159-97.
- Ghosh, B and Prabir De (2004): "How Do Different Categories of Infrastructure Affect Development? Evidence from Indian States", *Economic and Political Weekly*, Vol.39, No. 42, Oct 16-22, 2004, pp. 4645-4657.
- Ghosh, S (2003): Trends and Patterns of migration and Economic Development: An Inter-State Analysis, Unpublished M.Phil. Dissertation, (New Delhi: Center for the Study of Regional Development, Jawaharlal Nehru University).
- Gill, S Singh (1998): "Migration of labour in India", *The Indian Journal of Labour Economics*, Vol.41, No. 4, pp.-617-644.
- Gist, Noel P (1955): "Selective Migration in South India", *Sociological Bulletin*, 4(2), pp. 147-160.
- Gosal, G S and G Krishan (1975): "Patterns of Internal Migration in India", in Kosinski L A and R M Prothero (eds.), *People on the Move*, (London: Methuen Publication).



- Greenwood M J (1997): “Internal Migration in Developing Countries” in Mark R Rosenzweig and O Stark (eds.), *Handbook of Population and Family Economics*, Volume 1b, (Amsterdam: Elsevier Publication), pp. 647-720.
- Guo, F and X Yang (1999): “Gender Differences in Determinants of Temporary Labour Migration in China: A Multilevel Analysis”, *International Migration Review*, Vol.33, No.4 (winter, 1999), pp. 929-953.
- Gustav, R and J C H Fei (1961): “A Theory of Economic Development”, *The American Economic Review*, vol.51, No. 4, pp.-533-565.
- Harris, J and M P Todaro (1970): “Migration, Unemployment and Development: A Two Sector Analysis”, *The American Economic Review*, Vol-60, No-1, pp.126-142.
- Hugo, G (1981): “Population Movement in Indonesia during the Colonial period”, in Fox J.J. and Others (eds.), *Indonesian, Australian Perspective*, (Canberra: The Australian University Press), pp. 95-136.
- Jhingan, M L, B K Bhatt and J N Desai (2003): *Demography*, (Delhi: Vrinda Publication), pp.-145-146.
- Joseph, K V (1988): *Migration and Economic Development in Kerala*, (Delhi: Mittal Publication).
- Kamble, N D (1982): *Migrants in Indian Metropolis*, (New Delhi: Uppal Publishing House).
- Kaur, R (2004): “Across-Region Marriages: Poverty, Female Migration and the Sex Ratio”, *Economic and Political Weekly*, Vol.39, No. 25,(June 19-25, 2004), pp. 2595-2603.
- Khan, Mohd A (2004): Characteristics and Patterns of Out-Migration from Kerala, Unpublished Dissertation, (New Delhi: Centre for the Study of Regional Development, Jawaharlal Nehru University), India.
- Khan, Mohd A (2010): Rural Development and Rural Outmigration in Uttar Pradesh: A Case Study of Gorakhpur District, Unpublished Ph.D. Thesis, (New Delhi: Centre for the Study of Regional Development, Jawaharlal Nehru University), India.
- Khan, N (1981): *Pattern of Rural Out-Migration: A Micro Level Study*, (New Delhi: B.R.Publishing Corporation).

- Khawas, V (2005): “Urbanization in the North-East: Patterns, trends and policy prongs”, *Social Change*, Vol.35, No.2, pp. 47-69.
- Kundu, A (1986): “Migration, Urbanization and Inter-Regional Inequality: The Emerging Socio-Political Challenge”, *Economic and Political Weekly*, Vol. 21, No. 46 (Nov. 15, 1986), pp. 2005-2008.
- Kundu, A and N Sarangi (2007): “Migration, Employment Status and Poverty: An Analysis across Urban Centers”, *Economic and Political Weekly*, Jan 27, 2007, pp. 299-306.
- Kundu, A and S Gupta (1996): “Urbanization, Migration and regional Inequality”, *Economic and Political Weekly*, Vol.31, December 28, 1996, pp.-3391-93, pp.-3395-98.
- Kundu, A. and P C Mohanan (2009): “Employment and Inequality Outcomes in India”, Paper Presented in the International Seminar on Employment and Inequality Outcomes (Parish: OECD Development Center), 8 April, 2009.
- Kuznets, S (1966): *Modern Economic Growth: Rate, Structure and Spread*, (New Haven: Yale University Press).
- Lee, E S (1966): “A Theory of Migration”, *Demography*, Vol.-3, No.-1, pp.-47-57.
- Lessinger, J (1986): “Work and Modesty: The Diploma of Women Market Traders in South India”, *Feminist Studies*, Vol.12, No.3, (Autum, 1986), pp. 581-600.
- Lewis, G J (1982): *Human Migration: A Geographical Perspective*, (London: Croom Helm ltd.).
- Lewis, W A (1954): “Economic Development with Unlimited Supplies of Labour”, in the Manchester School of Economic and Social Studies, May 1954, Vol 22, pp.-139-191
- Lipton, M (1980): “Migration from Rural Areas of Poor Countries: The Impact on Rural Productivity and Income Distribution”, *World Development*, Vol. 8, pp. 1-24.
- Litchfield, J and H Waddington (2003): “Migration and poverty in Ghana: evidence from the Ghana Living Standards Survey”, Sussex Migration Working Paper no. 10, March 2003.
- Lusome, R (2009): ‘Labour Migration in India’ download by <http://community.eldis.org/> dated 12.10.2010.
- Lusome, R and R B Bhagat (2006): “Trends and Patterns of Internal Migration in India (1971-2001)”, Paper Presented in IASP Conference, Thiruvananthapuram, June, 2006.

- Mabogunje, A L (1970): "System Approach to a Theory of Rural to Urban Migration", *Geographical Analysis*, 2, pp.1-18.
- Mahmood, A (2008): *Statistical Methods in Geographical Studies*, (New Delhi: Rajesh Publication), India.
- Mahto, K (1984): *Population Mobility and Economic Development in Eastern India*, (New Delhi: Inter India Publications).
- Mishra, S N (1998): *Dynamics of Rural to Urban Migration in India*, (New Delhi: Anmol Publication Pvt. Ltd.).
- Mitra, A and M Murayama (2008): "Rural to Urban Migration: A District Level Analysis for India", IDE Discussion Paper No. 137, (New Delhi: Institute of Economic Development).
- Modi, A (2010): "Role of Migration in Urban Growth", *Kurukshetra*, December, vol.59, No.2, p.-7.
- Mohan, R and S Dasgupta (2005): "The 21th Century: Asia become Urban", *Economic and Political Weekly*, Vol.15.
- Mukherjee, S (2006): *Migration and Urban Decay: An Asian Experience*, (Jaipur: Rawat Publication).
- Narain, V (1972): "Rural to Urban Migration in Southern Maharashtra", Indian Census Centenary seminar on Internal Migration, October 23-24, 1972, (New Delhi: Office of the Registrar General).
- Neetha, N (2004): "Making of Female Breadwinners: Migration and Social Networking of Women domestics in Delhi", *Economic and Political Weekly*, Vol. 39, No. 17, April 24, 2004, pp.-1681-1688.
- Oberai, A S and H K Manmohan Singh (1983): *Causes and Consequences of Internal Migration: A case study of Punjab*, (Delhi: Oxford University Press), p.-25.
- Oberai, A S and R E Bilsbarrow (1984): "Theoretical Perspective on Migration", in Bilsbarrow et al (eds.), *Migration Surveys in Low Income Countries*, (London: Croom Helm), pp.-14-30.
- Pacione, M (2009): *Urban Geography: A Global Perspective*, (New York: Routledge Publication).

- Panini, M N (1996): "The Political Economy of Caste" in Srinivas M N (eds.) *Caste: it's twentieth Century Avatar*, (New Delhi: Penguin Publication), India.
- Premi, M K (1980): "Aspects of Female Migration in India", *Economic and Political Weekly*, Vol.15, No.15, April 12, 1980, pp. 714-720.
- Premi, M K (1984): *Social Demography: A Systematic Exposition*, (New Delhi: Jawahar Publishers).
- Premi, M K (1990): "India", in Charles B. Nam, William J. Serow and David F. Sly (eds.), *International Handbook on Internal Migration*, (New York: Greenwood Press).
- Ravenstein, E W (1885): "The laws of Migration", *Journal of the Statistical Society of London*, Vol.48, No.2, p.-199.
- Ravenstein, E W (1889): "The laws of Migration", *Journal of the Statistical Society of London*, Vol.52, No.2, p.-288.
- Reilly, W J (1929): *Methods for the Study of Retail Relationship*, (Austin: University of Texas Press).
- Roger T (2009): *Statistical Modeling for Social Researchers: Principal and practice*, (New York: Routledge Publication).
- Rogers, A (1988): "Age Patterns of Elderly Migration: An International Comparison", *Demography*, Vol. 25, No.3, (August, 1988), pp. 355-370.
- Shanthi, K (2006): "Female Labour Migration in India: Insight form NSS data", working paper 4/2006, (Chennai: Madrash School of Economics).
- Sharma, Ursula M (1977): "Migration from an Indian Village: An Anthropological Approach", *Sociologia Ruralis* , 17(4), pp.- 282-304.
- Singh, D P (1998): "Internal Migration in India: 1961-1991", *Demography India*, Vol. 27, No. 1, pp.245-261.
- Singh, D P (2009): "Poverty and Migration: Does Moving Help?", *Urban Poverty Report, 2009*, pp. 50-75.
- Singh, J P (1986): *Patterns of Rural-Urban Migration in India*, (New Delhi: Inter-India Publications).
- Singh, J P (1998): "Migration in India: A Review" in Singh J P (eds.), *Studies in Social Demography*, (New Delhi: M.D. Publications Pvt. Ltd.), pp.-239-40.

- Singh, S N et al (1981): "Dimensions of rural-urban migration in India and their impact on socio-economic and demographic factors" in Mandal, R.B. and Peter, G.L. (eds.), *Urbanization and Regional Development*, (New Delhi: Concept Publishing Co.), pp. 393-411.
- Singh, S R J (1985): A Study of Rural Out-Migration and its effect on fertility, Unpublished Ph.D. Thesis, (Varanasi: Banaras Hindu University).
- Sivamurthy, M and A S Khadi (1983): "Interstate Migration in India (1961-71)", *Demography India*, Vol.12, pp. 239-258.
- Sjaastad, L A (1962): "Cost and Returns of Human Migration", *Journal of Political Economy*, No. 7, pp.-80-93.
- Skeldon, R (1990): *Population Mobility in Developing World: A Reinterpretation*, (London: Belhaven Press).
- Srivastava, Ravi S (1998): "Migration and the labour market in India", *The Indian Journal of Labour Economics*, Vol. 41, No. 4.pp.
- Srivastava, Ravi S and S Bhattacharya (2003): "Globalization, Reforms and Internal Labour Mobility: An Analysis of Recent Trends", *Labour and Development*, 9(2), pp. 31-35.
- Srivastava, Ravi S and S K Sasikumar (2003): "An overview of migration in India, its impacts and key issues" Paper Presented in Regional Conference on Migration, Development and Pro-Poor Policy Choices in Asia, 22-24 June 2003, Dhaka, Bangladesh.
- Stark, O (1993): *The Migration of Labour*, (Oxford (UK) and Cambridge (USA): Blackwell Publication).
- Stouffer S A (1960): "Intervening Opportunities and Competing Migrants", *Journal of Regional Science*, Spring 1960, pp-1-26.
- Stouffer, S A (1940): "Intervening Opportunities: A theory relating population mobility and distance", *American Sociological Review*, 5(Dec,1940) , pp.845-67.
- Sundaram, K (1987): "Rural Urban Migration: An Economic Model and the Indian Evidence" in Rao, M S A (eds.), *Studies of Migration: Internal and International migration in India*, (India: Manohar Publication).

Theodore, S and W Schultz (1978): "Migration on Economists View" in William H. McNeill and Adam Ruth's (eds.), *Human Migration Patterns and Policies*, (London: Indiana University).

Todaro, M P (1976): *Internal Migration in Developing Countries: A review of Theory, Evidence, Methodology and Research priorities*, (Geneva: ILO).

Todaro, M P (1985): *Economic Development in Third World*, (London: Orient Longman), pp.-258-61.

Yadava, K N S (1989): *Rural to Urban Migration in India: Determinants, Patterns and Consequences*, (Delhi: Independence Publishing House).

Zachariah, K C (1964): *A historical study of the Internal Migration in the Indian Subcontinent 1901-1931*, (London: Asia Publishing House).

Zachariah, K C (1968): *Migration in Greater Bombay*, (London: Asia Publishing House).

Zelinsky, W (1971): "The Hypothesis of Mobility Transition", *Geographical Review*, Vol. 61, No.2, pp.-219-249.

Zipf, G K (1946): "The P1P2/D Hypothesis: On the intercity movement of persons", *American Sociological Review*, II (December, 1946), pp.677-86.

## **Reports:**

Report No. 430, 49th round (January-June 1993), National Sample Survey Organization, New Delhi, Government of India, October, 1998.

Report No. 470, 55th round (July 1999-June 2000), National Sample Survey Organization, New Delhi, Government of India, September, 2001.

Report No. 533, 55th round (July 2007-June 2008), National Sample Survey Organization, New Delhi, Government of India, June, 2010.

Annual Survey of Industries Reports, Central Statistical Office, New Delhi, year 1993-94, 1999-2000 and 2007-08.

Health Information of India, 1993, Central Bureau of Health Intelligence, Directorate General of Health Services, New Delhi.

Health Information of India, 1999, Central Bureau of Health Intelligence, Directorate General of Health Services, New Delhi.

National Health Profile, 2008, Central Bureau of Health Intelligence, Directorate General of Health Services, New Delhi.

Basic Statistical Returns of Scheduled Commercial Banks in India, March, 1993, Reserve Bank of India, Mumbai.

Basic Statistical Returns of Scheduled Commercial Banks in India, March, 1999, Reserve Bank of India, Mumbai.

Basic Statistical Returns of Scheduled Commercial Banks in India, March, 2007, Reserve Bank of India, Mumbai.

Infrastructure Report, 2004, Economic Intelligence Services, Centre for Monitoring of Indian Economy, Mumbai.

Infrastructure Statistics-2010, Central Statistical Office, New Delhi.

Websites:

<http://censusindia.gov.in/>

<http://www.indiastat.com/default.aspx>

## **Appendix A**

### **Concepts and Definitions**

The concepts and definitions of some important terms used in the National Sample survey are as follows:

**Usual place of residence (UPR):** In National Sample surveys, usual place of residence (UPR) of a person is defined as a place (village/town) where the person had stayed continuously for a period of six months or more.

**Migrant:** A household member, whose last usual place of residence (UPR), anytime in the past, was different from the present place of enumeration, is considered as a migrant member in a household.

**Migrant household:** If the entire household, as it is being enumerated had moved to the place of enumeration during the last 365 days preceding the date of survey, is considered as a migrant household. If one member of the household had moved ahead of other members to the present household and others had joined later (but all of them during the reference year) such households is also considered as migrant households. Where some members of the household were born or married into households which had moved, during the last 365 days, the entire household is treated as migrated to the place of enumeration.

#### **Reason of Migration:**

National Sample Survey covers the following reason of migration:

**(i) In search of employment:** Persons, who already were not employed at the time of leaving the last UPR, when migrated to another village/ town in search of employment is considered as migrated in search of employment.

**(ii) In search of better employment:** It includes those persons who were employed at the time of leaving last UPR, but had come to the place of enumeration in search of better employment, in terms of emoluments, job satisfaction, etc..

**(iii) To take up employment / better employment:** The first two cases are different from this one because it is related to persons who had come to the place of enumeration to take up employment. These persons are not in search of employment but are offered jobs or better jobs than those who were having at the time of leaving last UPR.



**(iv) Business:** Those who had migrated to start a new business or due to shifting of the existing business is considered as migrated for business.

**(v) Transfer of service/ contract:** Transfer of service/ contract includes persons who as part of the employment contract or service liability migrate from one place of posting to another.

**(vi) Proximity to place of work:** This category includes persons who had moved in order to be nearer to their places of work. These are the people who moved to another village/ town with the explicit purpose of avoiding or reducing commuting to place of work or other similar reasons and formed a separate category from the persons who had migrated to take up employment/ better employment.

**(vii) Studies:** Students and others who had left their UPR for studies are classified under this category. If a person changes UPR to pursue his/her studies and at the same time looks for employment, which is the case in many occasions, the factor which is basic for his/her change of residence is considered.

**(viii) Natural disaster (earthquake, drought, flood, tsunami, etc.):** Persons, who had migrated due to natural disaster caused by earthquake, drought, flood, cyclone, tsunami, etc., are covered under this category.

**(ix) Social/ political problems (riots, terrorism, political refugee, bad law and order, etc.):** Migration arising out of social or political problems such as riots, terrorism, political refugee, bad law and order, etc. are included under this category.

**(x) Displacement by development project:** Sometime undertaking development projects, such as construction of dams, power plants, or starting a new factory, etc., might result in eviction of persons and those affected by such displacements may migrate to other village/ town. Such types of migration are included in this category.

**(xi) Acquisition of own house/ flat:** Persons who had moved to a place to stay in a house/ flat acquired by them are categorized in this category. Here again, the reason for movement is directly attributable to the acquisition. Persons, who on retirement moved to their own house, etc., are not included here.

**(xii) Housing problems:** Certain persons moved from metropolitan cities or large towns to nearby smaller towns or other areas due to the problems of getting suitable

accommodation, poor amenities, or high rent, etc. Such persons are classified under this reason

**(xiii) Health care:** Persons sometimes moved from one place to another due to the availability of better medical facilities for treatment or conditions, unsuitable weather in the last UPR are covered under this reason.

**(xiv) Post retirement:** Sometimes after retirement, persons might leave UPR either to stay in their native place or in some other place chosen by him/ her. If the reason for migration was due to retirement from employment, they are in this category.

**(xv) Marriage:** A substantial number of women in India change their UPR after marriage. Person whose change in UPR occurred exclusively due to marriage are covered here.

**(xvi) Migration of parent/ earning member of the family:** In many cases, the members are passive movers in the sense that they change UPR because the parent or earning member of their family changes the UPR. Such migrants are categorized here.

**(xvii) Others:** Reasons for migration which could not be classified into any of the above categories are covered here.

## Appendix B

### B 1.1 Sample Size of Urban Migrants

States	49th Round			55th Round		
	Male	Female	Total	Male	Female	Total
Andhra Pradesh	2614	2862	5476	3024	3876	6900
Arunachal Pradesh	158	117	275	20	17	37
Assam	631	570	1201	368	425	793
Bihar	294	665	959	1012	2259	3271
Goa	161	155	316	332	313	645
Gujarat	1292	1777	3069	2041	3928	5969
Haryana	577	703	1280	783	1308	2091
Himachal Pradesh	303	489	792	1226	1327	2553
Jammu and Kashmir	299	447	746	693	1023	1716
Karnataka	1552	2063	3615	1838	2965	4803
Kerala	733	1089	1822	1582	2836	4418
Madhya Pradesh	2086	3459	5545	1776	4439	6215
Maharashtra	4635	5356	9991	5883	7079	12962
Manipur	100	50	150	38	31	69
Meghalaya	69	39	108	59	39	98
Mizoram	213	143	356	22	25	47
Nagaland	172	108	280	432	320	752
Orissa	816	875	1691	965	1247	2212
Punjab	1088	1686	2774	1404	2823	4227
Rajasthan	1155	2073	3228	1647	3091	4738
Sikkim	40	24	64	349	300	649
Tamil Nadu	2942	3358	6300	3055	4473	7528
Tripura	242	269	511	138	195	333
Uttar Pradesh	2647	4988	7635	3170	7264	10434
West Bengal	2700	2774	5474	2715	4261	6976
A & N Islands	429	350	779	313	278	591
Chandigarh	300	274	574	1101	1026	2127
Dadra & Nagar Haveli	52	53	105	148	124	272
Daman & Diu	97	126	223	156	218	374
Delhi	850	647	1497	94	56	150
Lakshadweep	112	84	196	200	144	344
Pondicherry	98	93	191	307	459	766
<b>Total</b>	<b>29457</b>	<b>37766</b>	<b>67223</b>	<b>36891</b>	<b>58169</b>	<b>95060</b>

Source: Computed from the Unit Level Data Of NSS 49<sup>th</sup> and 55<sup>th</sup> Round.

Conti.....

## Sample Size of Urban Migrants

States	64th Round		
	Male	Female	Total
Jammu & Kashmir	259	699	958
Himachal Pradesh	413	657	1070
Punjab	569	1619	2188
Chandigarh	291	289	580
Uttaranchal	576	705	1281
Haryana	592	1282	1874
Delhi	1273	1045	2318
Rajasthan	1052	2201	3253
Uttar Pradesh	1416	4455	5871
Bihar	605	1798	2403
Sikkim	217	193	410
Arunachal Pradesh	79	53	132
Nagaland	269	292	561
Manipur	19	14	33
Mizoram	531	588	1119
Tripura	135	289	424
Meghalaya	73	84	157
Assam	444	653	1097
West Bengal	1736	3049	4785
Jharkhand	403	773	1176
Orissa	727	1606	2333
Chhattisgarh	443	1008	1451
Madhya Pradesh	878	3138	4016
Gujarat	1700	2643	4343
Daman & Diu	92	126	218
Dadra & Nagar Haveli	184	184	368
Maharashtra	3817	5229	9046
Andhra Pradesh	2199	3005	5204
Karnataka	1360	2006	3366
Goa	162	216	378
Lakshadweep	109	68	177
Kerala	714	1133	1847
Tamilnadu	1441	2325	3766
Pondicherry	201	309	510
Andaman & Nicobar	265	232	497
<b>Total</b>	<b>25244</b>	<b>43966</b>	<b>69210</b>

*Source: Computed from the Unit Level Data Of NSS 64<sup>th</sup> Round.*

## B 2.2 Migration Rate for Urban India

State	49th Round			55th Round		
	Male	Female	Total	Male	Female	Total
Andhra Pradesh	26.41	35.37	30.78	30.26	39.09	34.58
Arunachal Pradesh	32.32	30.11	31.36	2.02	2.03	2.02
Assam	22.86	25.68	24.15	8.72	14.89	11.58
Bihar	3.77	12.83	7.76	12.53	32.03	21.62
Goa	16.76	24.27	19.78	32.80	35.08	33.90
Gujarat	18.31	29.98	23.84	25.23	47.27	35.75
Haryana	29.98	47.45	38.03	34.26	58.10	45.44
Himachal Pradesh	29.96	53.01	40.84	48.57	62.87	55.46
Jammu and Kashmir	14.06	35.26	24.40	17.45	27.63	22.27
Karnataka	17.56	28.46	22.82	25.94	39.42	32.53
Kerala	22.84	34.61	28.78	25.80	43.35	34.96
Madhya Pradesh	22.58	47.51	34.21	16.87	41.35	28.53
Maharashtra	34.80	46.21	40.15	36.94	44.80	40.65
Manipur	2.47	1.60	2.04	1.13	0.87	1.00
Meghalaya	4.25	2.20	3.28	3.16	2.20	2.69
Mizoram	4.35	3.08	3.72	0.60	0.67	0.63
Nagaland	18.80	16.20	17.66	53.62	45.42	49.88
Orissa	27.53	38.35	32.74	29.10	41.71	35.14
Punjab	15.76	37.57	26.03	24.22	52.06	37.07
Rajasthan	20.58	47.90	33.42	26.08	48.49	36.56
Sikkim	5.43	3.32	4.21	41.04	45.38	43.00
Tamil Nadu	27.27	34.61	30.92	26.74	39.03	32.74
Tripura	13.56	20.66	17.07	7.92	11.28	9.52
Uttar Pradesh	16.01	43.02	28.55	22.32	47.03	33.95
West Bengal	26.42	39.05	32.30	26.54	43.82	34.89
A & N Islands	59.16	51.90	55.89	59.45	51.85	55.71
Chandigarh	51.67	60.25	55.44	44.96	46.26	45.58
Dadra & Nagar Haveli	16.71	48.59	31.19	55.61	54.45	55.07
Daman & Diu	6.80	15.83	11.53	26.02	34.94	30.29
Delhi	35.64	32.95	34.42	2.54	2.01	2.29
Lakshadweep	17.21	12.46	14.65	17.58	12.55	15.11
Pondicherry	8.20	13.31	10.62	31.83	39.93	36.08
<b>Total</b>	<b>23.47</b>	<b>37.73</b>	<b>30.22</b>	<b>25.22</b>	<b>41.18</b>	<b>32.85</b>

Source: Computed from the Unit Level Data Of NSS 49<sup>th</sup> and 55<sup>th</sup> Round.

Cont.....

State	64th Round		
	Male	Female	Total
Jammu & Kashmir	9.65	28.02	18.55
Himachal Pradesh	44.53	61.09	52.37
Punjab	21.47	56.23	37.33
Chandigarh	54.12	52.09	53.18
Haryana	27.61	57.11	41.31
Delhi	42.70	41.73	42.27
Rajasthan	23.45	49.38	35.88
(Uttar Pradesh+ Uttaranchal)	17.72	47.58	31.89
(Bihar+ Jharkhand)	19.66	44.06	31.08
Sikkim	53.47	72.47	62.41
Arunachal Pradesh	3.22	2.36	2.83
Nagaland	31.47	32.49	31.97
Manipur	0.99	2.56	1.76
Mizoram	18.43	22.09	20.26
Tripura	9.46	19.00	14.16
Meghalaya	3.97	4.65	4.31
Assam	22.28	32.72	26.97
West Bengal	22.11	46.63	33.94
Orissa	32.27	56.62	44.13
(Madhya Pradesh +Chhattisgarh)	19.35	53.08	35.56
Gujarat	27.34	46.38	36.27
Daman & Diu	25.33	40.54	32.29
Dadra & Nagar Haveli	52.79	65.65	57.94
Maharashtra	35.19	49.01	41.73
Andhra Pradesh	33.27	46.66	39.94
Karnataka	26.40	38.19	32.29
Goa	31.32	42.83	37.17
Lakshadweep	39.17	21.52	30.31
Kerala	24.64	42.47	34.07
Tamilnadu	17.44	31.58	24.63
Pondicherry	19.72	39.92	29.88
Andaman & Nicobar	50.02	51.46	50.67
<b>Total</b>	<b>25.57</b>	<b>45.33</b>	<b>35.08</b>

Source: Computed from the Unit Level Data Of NSS 64<sup>th</sup> Round.

### B 3.1 Reasons of Rural to Urban Migration by Age-Group and Sex (49<sup>th</sup> Round) (Figures are in %)

Male																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	0.67	22.57	0.44	73.92	2.40	100	3.38	16.32	0.45	73.58	6.28	100	8.90	8.30	0.28	75.70	6.82	100
15-29	30.93	19.93	3.49	40.27	5.39	100	49.80	17.94	1.17	28.36	2.73	100	73.09	4.09	1.08	18.89	2.85	100
30-44	71.34	2.03	4.38	7.76	14.49	100	80.35	2.99	2.47	10.30	3.90	100	86.76	2.23	1.12	8.25	1.64	100
45-59	70.02	2.17	3.90	5.61	18.30	100	80.32	2.64	2.81	7.04	7.19	100	88.10	1.17	0.76	6.66	3.32	100
60-74	54.19	1.23	7.15	14.11	23.31	100	70.94	0.68	3.74	14.59	10.05	100	80.18	0.86	0.22	5.19	13.55	100
75+	54.19	1.23	7.15	14.11	23.31	100	34.21	1.81	0.00	31.80	32.19	100	73.81	0.00	0.74	11.69	13.76	100
Total	44.18	11.26	3.53	30.15	10.88	100	61.73	8.76	1.97	22.43	5.11	100	75.27	3.09	0.92	17.16	3.56	100
Female																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	1.37	13.58	1.07	80.32	3.66	100	2.53	16.38	0.00	76.52	4.58	100	0.09	4.91	0.96	78.71	15.33	100
15-29	1.85	1.76	71.65	22.22	2.52	100	3.33	4.06	62.81	27.35	2.45	100	5.61	3.06	57.36	31.77	2.21	100
30-44	3.72	0.22	72.57	20.60	2.89	100	4.30	0.43	68.15	25.42	1.70	100	3.87	0.05	59.22	35.77	1.09	100
45-59	2.93	0.01	73.60	18.53	4.93	100	6.23	0.00	61.66	28.11	4.00	100	3.98	0.38	54.29	37.93	3.43	100
60-74	2.92	0.28	72.75	18.20	5.84	100	8.60	0.21	49.63	32.35	9.22	100	5.53	0.00	41.22	43.52	9.72	100
75+	0.23	0.00	70.03	19.46	10.28	100	1.66	0.00	47.73	30.63	19.99	100	0.59	0.00	36.64	59.38	3.39	100
Total	2.67	1.63	67.40	24.73	3.57	100	4.52	2.46	59.49	30.16	3.36	100	4.23	1.45	51.49	39.18	3.66	100

Source: Computed from the Unit Level Data Of NSS 49<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.2 Reasons of Rural to Urban Migration by Age-Groups and Sex (55<sup>th</sup> Round) (Figures are in %)

Male																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	1.45	23.65	0.30	65.54	9.07	100	1.93	10.17	0.19	77.64	10.08	100	6.95	12.29	0.00	76.54	4.21	100
15-29	25.99	23.15	2.19	40.55	8.12	100	44.49	18.27	1.55	30.33	5.37	100	77.25	3.18	0.51	16.32	2.73	100
30-44	69.48	2.41	3.82	9.78	14.51	100	78.50	2.59	1.48	12.53	4.91	100	84.17	0.97	0.84	8.58	5.44	100
45-59	68.85	1.55	2.81	5.57	21.23	100	79.25	1.60	1.39	10.33	7.43	100	87.29	1.06	0.87	7.32	3.46	100
60-74	55.22	0.29	6.25	9.49	28.75	100	66.37	1.54	2.95	13.33	15.82	100	73.05	0.11	1.92	13.19	11.72	100
75+	57.84	0.68	1.20	23.66	16.63	100	48.18	2.12	5.42	15.39	28.89	100	55.12	0.00	6.20	18.76	19.92	100
<b>Total</b>	<b>42.98</b>	<b>12.12</b>	<b>2.63</b>	<b>28.65</b>	<b>13.62</b>	<b>100</b>	<b>58.53</b>	<b>7.84</b>	<b>1.46</b>	<b>25.14</b>	<b>7.04</b>	<b>100</b>	<b>73.96</b>	<b>2.84</b>	<b>0.74</b>	<b>18.04</b>	<b>4.42</b>	<b>100</b>
Female																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	1.49	16.22	1.27	74.21	6.81	100	1.83	6.85	1.12	81.80	8.41	100	0.74	1.38	0.00	94.09	3.79	100
15-29	1.57	3.03	70.33	21.11	3.97	100	2.70	2.21	64.04	28.49	2.55	100	3.94	1.21	56.73	32.87	5.24	100
30-44	2.52	0.29	70.79	22.02	4.38	100	4.51	0.09	67.16	25.06	3.19	100	3.26	0.15	63.30	30.92	2.36	100
45-59	3.76	0.19	69.96	20.88	5.21	100	3.39	0.06	67.82	24.76	3.98	100	4.02	0.00	57.69	34.68	3.61	100
60-74	1.82	0.00	71.10	19.00	8.08	100	2.55	0.02	59.62	28.38	9.44	100	6.60	0.18	43.66	42.70	6.86	100
75+	0.52	0.00	62.05	21.25	16.18	100	1.39	0.00	50.91	39.72	7.98	100	9.01	0.00	50.41	20.97	19.61	100
<b>Total</b>	<b>2.28</b>	<b>2.24</b>	<b>65.29</b>	<b>25.08</b>	<b>5.12</b>	<b>100</b>	<b>3.34</b>	<b>1.20</b>	<b>60.70</b>	<b>30.64</b>	<b>4.12</b>	<b>100</b>	<b>3.67</b>	<b>0.58</b>	<b>52.29</b>	<b>39.25</b>	<b>4.21</b>	<b>100</b>

Source: Computed from the Unit Level Data Of NSS 55<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household



### B 3.3 Reasons of Rural to Urban Migration by Different Age-Groups and Sex (64<sup>th</sup> Round) (Figures are in %)

Male																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	0.97	24.14	0.26	67.98	6.65	100	0.11	7.91	0.05	86.36	5.56	100	0.88	4.46	0.13	91.66	2.87	100
15-29	26.22	27.90	1.36	38.83	5.68	100	49.79	18.48	1.29	27.02	3.42	100	76.33	4.04	0.30	17.60	1.73	100
30-44	65.83	3.91	3.13	13.98	13.15	100	80.51	2.09	1.25	9.45	6.71	100	91.41	0.87	0.40	5.37	1.95	100
45-59	71.61	3.13	3.54	6.46	15.26	100	82.90	2.07	3.67	5.46	5.91	100	88.86	1.13	0.56	7.27	2.18	100
60-74	49.58	1.49	12.08	13.05	23.80	100	67.53	1.16	1.30	11.21	18.80	100	77.75	0.85	1.56	5.04	14.81	100
75+	23.10	0.48	0.97	47.61	27.84	100	47.64	2.46	4.18	28.88	16.83	100	55.42	0.00	2.60	35.97	6.02	100
<b>Total</b>	42.63	14.02	2.88	29.20	11.27	100	62.42	7.57	1.65	21.90	6.45	100	76.41	2.47	0.43	18.10	2.58	100
Female																		
Age-Group	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
0-14	0.29	23.64	0.23	68.10	7.74	100	0.94	12.53	0.00	81.91	4.62	100	1.09	6.18	0.00	88.65	4.08	100
15-29	1.51	5.96	68.52	21.15	2.87	100	3.78	6.04	58.98	29.20	2.00	100	3.00	1.14	52.03	39.80	4.03	100
30-44	1.98	0.18	73.40	20.37	4.07	100	4.42	0.07	69.68	22.70	3.12	100	2.85	0.00	51.72	43.08	2.34	100
45-59	2.18	0.37	74.33	19.64	3.48	100	3.31	0.02	72.26	21.80	2.61	100	5.57	0.30	55.79	37.03	1.31	100
60-74	1.80	1.01	75.59	17.46	4.14	100	2.74	0.01	71.58	20.50	5.18	100	0.91	0.11	54.42	39.53	5.03	100
75+	0.57	0.00	65.60	22.07	11.75	100	0.04	0.00	62.27	24.31	13.39	100	0.60	3.34	62.93	31.60	1.53	100
<b>Total</b>	1.75	3.19	68.22	22.83	4.00	100	3.61	2.40	63.57	27.30	3.13	100	3.11	0.92	48.95	44.06	2.96	100

Source: Computed from the Unit Level Data Of NSS 64<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household.

### B 3.4 Reasons of Rural to Urban Migration by Marital Status and Sex (49<sup>th</sup> Round) (Figures are in %)

Male																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE /H	Others	Total	ERM	Studies	Marriage	MWE /H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	10.02	24.99	0.54	59.75	4.70	100	26.65	20.82	0.35	47.03	5.15	100	46.19	6.25	1.21	40.22	6.12	100
Currently Married	68.29	2.33	5.00	10.28	14.10	100	78.92	3.31	2.44	10.60	4.73	100	86.86	1.79	0.80	8.23	2.32	100
Widowed	28.30	0.80	17.19	20.13	33.58	100	47.63	1.36	10.01	26.37	14.63	100	75.83	4.77	1.11	9.65	8.64	100
Divorced/ Separated	40.81	0.00	6.52	42.76	9.92	100	81.39	0.00	0.00	10.69	7.92	100	31.11	0.00	0.00	17.17	51.72	100
<b>Total</b>	<b>44.19</b>	<b>11.27</b>	<b>3.53</b>	<b>30.16</b>	<b>10.85</b>	<b>100</b>	<b>61.73</b>	<b>8.76</b>	<b>1.97</b>	<b>22.43</b>	<b>5.11</b>	<b>100</b>	<b>75.28</b>	<b>3.09</b>	<b>0.92</b>	<b>17.16</b>	<b>3.56</b>	<b>100</b>
Female																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE /H	Others	Total	ERM	Studies	Marriage	MWE /H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	2.50	13.65	2.40	75.34	6.11	100	7.23	19.72	2.62	64.20	6.23	100	10.02	9.85	1.09	68.35	10.70	100
Currently Married	2.05	0.15	77.22	19.02	1.56	100	3.05	0.23	69.80	25.26	1.65	100	2.81	0.06	61.59	33.68	1.86	100
Widowed	5.80	0.20	68.02	15.85	10.13	100	11.34	0.17	48.16	29.50	10.83	100	6.77	0.33	44.79	40.75	7.36	100
Divorced/ Separated	16.41	0.00	12.35	11.99	59.25	100	17.68	0.00	25.56	2.46	54.31	100	24.54	0.00	2.64	40.18	32.64	100
<b>Total</b>	<b>2.67</b>	<b>1.63</b>	<b>67.40</b>	<b>24.73</b>	<b>3.57</b>	<b>100</b>	<b>4.52</b>	<b>2.46</b>	<b>59.49</b>	<b>30.17</b>	<b>3.36</b>	<b>100</b>	<b>4.23</b>	<b>1.45</b>	<b>51.49</b>	<b>39.18</b>	<b>3.66</b>	<b>100</b>

Source: Computed from the Unit Level Data Of NSS 49<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.5 Reasons of Rural to Urban Migration by Marital Status and Sex (55<sup>th</sup> Round) (Figures are in %)

Male																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	10.49	26.35	0.45	54.82	7.89	100	22.30	18.62	0.34	51.62	7.13	100	51.55	7.42	0.00	37.49	3.54	100
Currently Married	66.00	2.88	3.24	10.58	17.30	100	76.85	2.71	1.78	12.19	6.47	100	84.97	0.70	0.86	8.68	4.79	100
Widowed	36.00	0.00	19.48	26.83	17.69	100	48.03	0.66	9.02	18.25	24.05	100	63.27	0.00	11.94	17.57	7.22	100
Divorced/ Separated	30.97	0.00	9.76	22.69	36.59	100	100.00	0.00	0.00	0.00	0.00	100	69.06	0.00	0.00	22.49	8.45	100
<b>Total</b>	<b>43.00</b>	<b>12.12</b>	<b>2.62</b>	<b>28.66</b>	<b>13.60</b>	<b>100</b>	<b>58.51</b>	<b>7.84</b>	<b>1.46</b>	<b>25.15</b>	<b>7.04</b>	<b>100</b>	<b>73.96</b>	<b>2.84</b>	<b>0.74</b>	<b>18.04</b>	<b>4.42</b>	<b>100</b>
Female																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	2.71	16.87	1.75	68.82	9.85	100	4.32	9.52	1.26	76.62	8.28	100	6.35	3.61	0.66	84.63	4.76	100
Currently Married	1.95	0.28	75.62	19.43	2.72	100	2.81	0.08	71.25	23.72	2.15	100	2.44	0.10	62.17	31.96	3.33	100
Widowed	3.48	0.00	66.38	17.25	12.89	100	4.94	0.01	54.93	29.45	10.67	100	9.19	0.00	50.45	29.76	10.59	100
Divorced/ Separated	10.93	0.00	17.37	14.90	56.80	100	18.74	0.00	31.87	8.89	40.49	100	25.49	0.00	10.52	49.96	14.04	100
<b>Total</b>	<b>2.28</b>	<b>2.24</b>	<b>65.29</b>	<b>25.08</b>	<b>5.12</b>	<b>100</b>	<b>3.34</b>	<b>1.20</b>	<b>60.70</b>	<b>30.64</b>	<b>4.12</b>	<b>100</b>	<b>3.67</b>	<b>0.58</b>	<b>52.29</b>	<b>39.25</b>	<b>4.21</b>	<b>100</b>

Source: Computed from the Unit Level Data Of NSS 55<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.6 Reasons of Rural to Urban Migration by Marital Status (64<sup>th</sup> Round) (Figures are in %)

Male																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	10.74	30.08	0.39	52.47	6.32	100	28.34	18.60	0.32	48.09	4.64	100	52.05	5.26	0.05	40.33	2.32	100
Currently Married	64.89	3.75	3.55	14.10	13.71	100	79.21	2.43	1.91	9.19	7.25	100	89.68	1.03	0.55	6.12	2.62	100
Widowed	26.00	1.97	25.09	15.94	31.00	100	62.02	0.09	11.71	17.87	8.31	100	68.55	0.50	4.11	23.08	3.75	100
Divorced/ Separated	34.82	0.00	0.00	37.95	27.23	100	72.17	5.96	10.14	3.70	8.02	100	49.87	0.00	0.00	10.59	39.54	100
<b>Total</b>	<b>42.64</b>	<b>14.02</b>	<b>2.88</b>	<b>29.19</b>	<b>11.27</b>	<b>100</b>	<b>62.43</b>	<b>7.57</b>	<b>1.65</b>	<b>21.90</b>	<b>6.44</b>	<b>100</b>	<b>76.40</b>	<b>2.48</b>	<b>0.43</b>	<b>18.11</b>	<b>2.59</b>	<b>100</b>
Female																		
Marital Status	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriages	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Never Married	1.64	27.07	1.07	63.20	7.01	100	8.08	19.31	0.06	66.24	6.31	100	6.03	6.13	0.46	79.67	7.71	100
Currently Married	1.39	0.27	77.56	18.32	2.46	100	2.24	0.21	73.24	22.82	1.49	100	2.18	0.10	56.53	39.31	1.88	100
Widowed	3.33	0.65	72.05	15.95	8.02	100	7.04	0.00	64.57	19.18	9.20	100	7.12	0.58	53.26	34.61	4.43	100
Divorced/ Separated	13.53	0.00	12.52	18.75	55.20	100	25.15	0.00	41.42	1.45	31.98	100	0.00	0.00	46.09	28.31	25.60	100
<b>Total</b>	<b>1.75</b>	<b>3.19</b>	<b>68.21</b>	<b>22.84</b>	<b>4.01</b>	<b>100</b>	<b>3.61</b>	<b>2.40</b>	<b>63.57</b>	<b>27.31</b>	<b>3.11</b>	<b>100</b>	<b>3.11</b>	<b>0.92</b>	<b>48.99</b>	<b>44.03</b>	<b>2.95</b>	<b>100</b>

Source: Computed from the Unit Level Data Of NSS 64<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.7 Reasons of Rural to Urban Migration by Monthly Per Capita Expenditure (49<sup>th</sup> Round) (Figures are in %)

Male																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	41.77	7.15	5.68	31.84	13.55	100	54.60	3.76	3.08	32.33	6.23	100	68.52	6.85	1.67	21.05	1.90	100
Q2	40.93	13.49	3.39	33.12	9.06	100	60.64	5.39	3.04	24.37	6.56	100	72.04	1.34	0.32	22.28	4.02	100
Q3	45.75	9.85	1.45	32.70	10.25	100	66.69	4.27	2.15	24.00	2.89	100	74.21	1.72	1.41	18.32	4.34	100
Q4	46.47	16.29	5.34	21.21	10.70	100	60.37	14.40	0.68	18.05	6.50	100	78.37	2.26	1.21	15.96	2.20	100
Upper Quintile	52.93	11.80	0.85	23.42	11.00	100	65.37	16.78	0.69	13.92	3.24	100	79.36	4.97	0.35	11.06	4.27	100
Female																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	2.19	1.23	72.55	20.21	3.82	100	3.34	2.83	64.09	27.42	2.31	100	6.36	0.16	54.00	37.69	1.79	100
Q2	1.92	1.47	70.41	23.03	3.17	100	4.46	0.30	63.00	28.78	3.47	100	2.22	0.23	57.01	37.65	2.89	100
Q3	3.30	2.41	61.21	29.92	3.15	100	2.51	1.71	59.14	33.15	3.49	100	3.43	0.47	48.41	39.96	7.73	100
Q4	3.13	2.13	60.39	30.40	3.96	100	3.93	1.39	56.39	34.13	4.16	100	4.63	0.24	50.63	42.23	2.27	100
Upper Quintile	6.51	2.03	50.24	36.70	4.53	100	10.9	9.12	46.33	29.52	4.08	100	5.41	7.07	46.71	38.76	2.04	100

Source: Computed from the Unit Level Data Of NSS 49<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.8 Reasons of Rural to Urban Migration by Monthly Per Capita Expenditure (55<sup>th</sup> Round) (Figures are in %)

Male																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	37.92	12.01	5.00	30.75	14.31	100	45.16	3.45	3.72	35.68	11.97	100	61.39	2.16	1.54	26.72	8.19	100
Q2	44.62	8.07	3.30	32.12	11.89	100	60.06	2.96	1.23	29.08	6.67	100	71.86	0.97	0.98	24.48	1.70	100
Q3	44.85	9.57	1.92	29.74	13.92	100	59.81	7.42	1.41	27.22	4.14	100	71.99	2.14	0.68	20.82	4.37	100
Q4	49.44	14.13	1.54	23.99	10.89	100	67.22	7.97	0.72	17.47	6.62	100	79.91	2.80	0.65	12.09	4.55	100
Upper Quintile	39.46	16.85	1.46	25.13	17.10	100	58.97	17.13	0.34	18.04	5.52	100	79.05	5.32	0.32	11.83	3.48	100
Female																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	1.12	1.73	76.30	16.82	4.03	100	4.1	0.52	68.77	23.06	3.55	100	5.55	0.16	48.76	38.88	6.66	100
Q2	1.52	1.67	68.16	24.48	4.17	100	2.49	0.39	55.52	37.94	3.66	100	2.75	0.45	52.01	41.58	3.21	100
Q3	2.84	2.13	60.67	28.95	5.41	100	3.23	1.69	55.87	35.47	3.74	100	2.07	0.42	50.01	44.43	3.06	100
Q4	2.90	4.02	54.06	32.34	6.68	100	3.44	1.74	61.02	29.17	4.63	100	4.81	0.22	56.68	34.95	3.34	100
Upper Quintile	6.27	4.70	37.68	43.01	8.34	100	4.99	2.89	53.14	35.06	3.93	100	3.92	1.63	57.09	33.43	3.93	100

Source: Computed from the Unit Level Data Of NSS 55<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 3.9 Reasons of Rural to Urban Migration by Monthly Per Capita Expenditure (64<sup>th</sup> Round) (Figures are in %)

Male																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	39.84	6.31	6.88	31.49	15.47	100	49.44	3.62	4.30	33.32	9.32	100	68.34	1.42	0.28	25.56	4.39	100
Q2	40.50	9.84	1.97	37.65	10.02	100	55.89	3.51	2.08	32.06	6.46	100	68.17	1.11	0.75	28.26	1.71	100
Q3	43.43	15.60	1.78	28.88	10.31	100	66.04	4.33	1.78	22.08	5.78	100	76.81	1.88	0.50	18.56	2.25	100
Q4	44.78	20.59	0.84	25.31	8.49	100	70.13	8.04	0.69	15.97	5.17	100	83.80	2.34	0.15	11.91	1.80	100
Upper Quintile	46.96	23.07	1.96	16.62	11.39	100	64.32	17.40	0.45	10.99	6.83	100	79.72	5.80	0.46	9.90	4.12	100
Female																		
Quintile Classes of MPCE	Intra-District						Inter-District						Inter-State					
	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total	ERM	Studies	Marriage	MWE/H	Others	Total
Lower Quintile	1.58	1.60	76.97	16.23	3.62	100	2.07	1.97	74.39	18.47	3.10	100	2.47	0.93	54.27	38.55	3.79	100
Q2	0.85	1.90	71.30	23.08	2.87	100	2.83	0.68	67.92	26.30	2.27	100	1.65	0.26	47.37	46.49	4.24	100
Q3	1.37	3.23	65.81	25.78	3.81	100	4.58	1.72	58.38	33.11	2.21	100	2.88	0.07	46.01	48.97	2.07	100
Q4	2.04	7.94	52.97	30.72	6.33	100	3.52	2.23	58.78	31.52	3.95	100	2.09	1.58	49.78	44.63	1.92	100
Upper Quintile	5.78	6.32	49.75	32.36	5.79	100	6.18	7.62	52.07	29.00	5.13	100	8.83	2.83	47.34	39.05	1.96	100

Source: Computed from the Unit Level Data Of NSS 64<sup>th</sup> Round. ERM- Employment Related Migration, MWE/H- Migration with the earning member of the household

### B 4.1 Development Indicators of Infrastructure used in Principal Component Analysis (Year 1993-94)

States	No. of Bed in Government Hospital per Lakh Population	No. of Scheduled Commercial Bank per Lakh population	Road Density per 100 Square KM	Rail Density per 1000 Square KM	No. of Primary School per Lakh population	No. of Middle School per Lakh population	No. of Colleges per lakh Population	Tele-Density per 100 population	Annual Per Capita Electricity Consumption in KWH
Andhra Pradesh	3.68	6.89	58.99	18.38	0.01	0.11	0.58	0.64	371
Assam	41.26	5.33	85.26	31.45	0.01	0.03	0.98	0.26	104
Bihar	30.16	7.29	50.45	30.57	0.01	0.05	0.61	0.18	130
Delhi	89.90	11.83	1528.52	113.51	0.05	0.19	0.60	6.74	746
Gujarat	47.96	8.15	42.79	26.94	0.03	0.02	0.66	1.33	599
Haryana	27.52	7.55	60.87	33.91	0.03	0.12	0.80	0.89	478
Himachal Pradesh	67.00	14.01	50.27	4.78	0.01	0.05	0.84	0.89	251
Karnataka	58.15	9.54	72.68	16.11	0.02	0.03	1.32	0.93	363
Kerala	93.94	9.94	347.22	26.45	0.04	0.10	0.58	1.26	236
Madhya Pradesh	35.40	8.77	46.50	13.50	0.01	0.03	0.64	0.51	334
Maharashtra	41.23	7.06	72.85	17.73	0.02	0.04	0.90	1.67	499
Orissa	39.71	6.55	136.60	12.86	0.01	0.03	1.32	0.29	321
Punjab	50.96	10.48	112.85	42.12	0.02	0.15	0.84	1.23	785
Rajasthan	43.92	6.78	36.76	16.77	0.01	0.05	0.37	0.51	266
Tamil Nadu	65.95	7.86	103.91	30.93	0.02	0.10	0.41	0.96	431
Uttar Pradesh	24.60	6.26	65.50	30.23	0.02	0.09	0.30	0.33	197
West Bengal	66.29	6.11	65.97	43.10	0.01	0.23	0.43	0.53	176



#### B 4.2 Development Indicators of Infrastructure used in Principal Component Analysis (Year 1999-2000)

States	No. of Bed in Government Hospital per Lakh Population	No. of Scheduled Commercial Bank per Lakh population	Road Density per 100 Square KM	Rail Density per 1000 Square KM	No of Primary School per Lakh population	No of Middle School per Lakh population	No of Colleges per lakh Population	Tele-Density per 100 population	Annual Per Capita Electricity Consumption in KWH
Andhra Pradesh	36.36	6.89	69.45	18.51	73.01	12.56	1.29	3.13	391
Assam	36.67	4.78	128.02	30.5	125.81	30.36	1.06	1.06	101
Bihar	19.00	4.70	44.61	30.15	52.22	12.74	0.69	0.65	141
Gujarat	44.55	7.48	70.03	27.1	29.64	40.17	0.68	4.26	835
Haryana	24.15	7.26	63.54	35.01	50.82	8.59	0.81	3.36	531
Himachal Pradesh	84.07	13.08	52.80	4.83	173.99	24.66	1.08	4.32	339
Karnataka	53.09	9.25	79.29	15.51	45.28	46.14	1.66	3.76	397
Kerala	95.66	10.47	381.21	27.02	21.29	9.36	0.59	5.6	261
Madhya Pradesh	22.61	5.68	44.23	13.33	114.31	29.08	0.51	1.54	352
Maharashtra	41.11	6.72	84.12	17.54	43.99	24.75	0.90	5.4	520
Orissa	31.97	6.16	151.62	14.88	115.35	33.14	1.55	1.21	355
Punjab	45.89	10.59	121.67	41.74	54.02	10.53	0.81	5.67	921
Rajasthan	38.62	6.06	41.22	17.3	62.93	29.42	0.48	2.11	335
Tamil Nadu	61.15	7.91	122.80	32.2	50.06	9.09	0.62	4.52	484
Uttar Pradesh	19.92	5.27	92.71	30.31	56.36	12.60	0.44	1.33	335
West Bengal	58.30	5.69	100.07	41.91	65.83	3.79	0.49	2.09	95

### B 4.3 Development Indicators of Infrastructure used in Principal Component Analysis (Year 2007-2008)

States	No. of Bed in Government Hospital per Lakh Population	No. of Scheduled Commercial Bank per Lakh population	Road Density per 100 Square KM	Rail Density per 1000 Square KM	No of Primary School per Lakh population	No of Middle School per Lakh population	No of Colleges per lakh Population	Tele-Density per 100 population	Annual Per Capita Electricity Consumption in KWH
Andhra Pradesh	41.68	7.58	79.32	18.8	75.83	21.80	2.03	28.25	877
Assam	10.19	4.65	293.65	29.11	105.46	44.24	1.18	14.74	187
Bihar	22.54	4.39	79.17	30.89	53.14	21.19	0.74	16.24	777
Delhi	140.71	12.37	1993.19	123.05	15.15	3.77	0.40	110.05	1433
Gujarat	52.75	7.43	74.80	27.18	30.80	42.25	0.94	33.63	1493
Haryana	31.94	8.45	67.24	33.18	56.27	13.22	0.70	30.39	1296
Himachal Pradesh	122.96	13.72	65.20	5.12	174.63	75.95	1.67	41.16	967
Karnataka	86.00	9.85	133.19	15.67	50.17	47.91	0.80	34.53	834
Kerala	84.00	11.85	526.87	27.02	20.12	9.00	0.56	45.34	444
Madhya Pradesh	31.90	5.43	54.16	13.68	144.01	56.71	1.14	24.67	1496
Maharashtra	28.07	6.81	72.57	17.99	39.33	24.88	0.94	27.42	1025
Orissa	36.69	6.52	138.34	15.33	125.49	50.47	1.77	15	749
Punjab	39.74	11.84	89.71	42.36	49.54	9.27	0.87	47.89	1614
Rajasthan	49.69	6.01	50.11	16.61	85.79	53.01	1.26	23.74	693
Tamil Nadu	71.40	8.65	139.33	31.76	44.42	13.05	1.05	35.09	1132
Uttar Pradesh	20.24	5.20	110.63	30.22	71.39	23.26	0.89	26.8	1201
West Bengal	57.11	5.78	238.61	44.51	57.37	1.47	0.43	14.36	436

**B 4.4 Eigen Values and Percentage of Variance in Principal Component  
Analysis**

<b>Year</b>	<b>Component</b>	<b>Highest Eigen Value</b>	<b>Percentage of Variance</b>	<b>Cumulative Percentage</b>
<b>1993-94</b>	1	4.766	59.57	59.57
	2	1.117	13.96	73.53
<b>1999-2000</b>	1	3.289	41.11	41.11
	2	1.930	24.13	65.24
	3	1.335	16.69	81.94
<b>2007-2008</b>	1	5.025	62.81	62.81
	2	1.536	19.20	82.01