CHAPTER 10

SUMMERY AND CONCUSSIONS

The present study makes a comprehensive analysis of the trend, pattern, streams and reasons of inter-regional and intra-regional migration in India during 1951 to 2001.

Chapter-1, the introduction, provides the background of the current study. Migration may be defined as a permanent or semi permanent change of residence (Lee, 1966). Migration, either internal or external, has been a focus of attention by the demographers and policy makers. This is one of the most important demographic issues of all countries. It is a major factor in the process of urbanization, and social change. Apart from the natural increase in population brought about by changes in birth rate and death rates, migration is the only factor, which can change the demographic features of a region.

Migration of persons within national borders is far greater in magnitude than migration across international borders and has enormous potential to contribute to economic prosperity, social cohesion and urban diversity of the domestic economy. Internal migration is an essential and inevitable component of the economic and social life of the country, given regional imbalances and labour shortages, and safe migration should be promoted to maximize its benefits. However, in the absence of a coherent policy framework and strategy, migration imposes heavy costs on human development through poor labour arrangements and working conditions of migrants, and obstacles in their access to shelter, education, healthcare and food. So, internal migration is now recognized as an important factor in influencing social and economic development, especially in developing countries (Todaro, 1980).

India presents a picture of regional variations in population growth, per capita income, the proportion of population living below the poverty line, the percentage of urban population to total population. Some states are economically advanced while others are relatively backward. Even within the same state, some areas are more developed
while others are less. Such regional imbalance in India has also resulted in regional imbalance in population redistribution.

Census of India, 2011, records the total population of India as 1210 million, consisting of 623 million males and 587 million of females. The size of population varies widely among the 35 states and union territories in India (Census of India, 2011). According to the Census of India, 2001, the total population of India is 1028 million consisting of 532 million males and 496 million females. India is geographically divided into 28 states and 7 union territories. There is a tremendous variation in the aggregate population size across the state. It varies from 0.54 million in Sikkim to 166.2 million in Uttar Pradesh. In 2001, 309 million persons were migrants based on place of last residence, which constitute about 30% of the total population of the country. This figure indicates an increase of around 37 percent from census 1991 which recorded 226 million migrants (Census of India, 2001). Out of the total migrants 91 million are males and the rest 218 are females. This indicates that mobility of Indian population has significantly increased during the 1990s (Census of India, Various Reports, 2001).

Thus some states of India have attracted in flow of population while others are marked by exodus. This movement of population has also created problems. These problems are assuming importance. To visualize the complete picture of internal migration in India, a study on trend, pattern and reasons of migration between different regions and within the states of a region is needed.

Chapter-2 is the review of the literature in this context. This review is done on two parts. In the first part there is a general survey of the literature on migration and in the second part the review of literature on India is presented.

Ravenstein (1885, 1889) carried out the study on the area of migration. He defined several laws. Some are favourable in the process of migration and some are not. In a generalized picture, it is to found that Ravenstein’s laws on migration were criticized by many (Bourne, 1889; Humphreys, 1889). Ravenstein’s laws were interpreted by Redford (1926) in terms of pull and push factors. Redford pointed out that the unfavourable socio-economic and physical factors tend to push people from their
homeland while favourable conditions tend to pull people towards another geographic location.

Lee (1966) developed a concept of “intervening obstacles”. This is supported by Rempel (1970) and Sahota’s (1968), but criticized by Connell, Dasgupta, Laishley and Lipton (1976). One of the major factors influencing the process of migration is the cost of transportation. Richey (1976) and Gardner (1981) and Schultz (1971) have worked on it. Besides financial costs, migration involves ‘other costs’. Greenwood (1971) found that people are reluctant to make long-distance movement because it widens the cultural gap between the migrant’s home and his place of destination. According to Mangalam (1968) it is preferable to a migrant to go to a destination where the social organization is as similar as possible to that of their place of origin. Kuznets (1966) explained how economic growth and development could lead to migration. Goldstein (1990) observed that the flow of temporary rural-to-urban migrants allows urban to meet their requirement of special labour force and service.

Todaro (1969) model of rural-urban migration is a pioneering work in the field of migration. It is based on the first and foremost model of development by Lewis (1954), and the model formalized and extended by Fei and Ranis (1961). Todaro model on migration is basically an economic phenomenon. A migrant takes into account the available various labour market opportunities such as between the rural and the urban sectors and chooses that particular one which maximizes his expected gains from migration. Harris and Todaro (1970) modified the basic Todaro model (1969) resulting in a two-sector trade model of migration and unemployment.

Several authors have tested the basic Todaro migration model [For example, Barnum and Sabot (1977), Yap’s (1977), Papola (1981), Tianhong and McCatty (2004)]. From time to time, many other scholars also either modified or extended the original Todaro model as well as the Harris-Todaro model. A few of them were Porter (1973), Bhagwati and Srinivasan (1974), Corden and Findlay (1975), Fields (1975), Lundborg (1990) Hatton and Williamson (1992), Beladi and Marjit (1996). In spite of wage and income differentials, some of the studies considered wages in the place of origin and destination separately to explain migration. The studies of Sahota (1968), Beals, Levy and Moses (1967), Levy and Wadycki (1974), Barnum and Sabot (1977), Garrison (1982) are worth mentioning in this context.

Family size, structure and also any friction in it have important role to play in the decision to migrate. Studies of Banton (1957), Upton (1967), Hilal (1969), Wiest (1970), Wyon and Gordon (1971), Borjas and Bronars (1991) focused on these aspects.

Impacts of migration have also received attention from many of the researchers (e.g. Connell et al.; 1976, Srivastava, 1999; Weiner, 1978 and 1982; Rogaly et al., 2001; Rogaly and Coppard, 2003; Rani and Shylendra, 2001; Mosse et al., 1997, 2002 and 2004; Srivastava, 2001 and 2003; de Hann, 2011).

The early study of Indian population movement was conducted by Davis (1951). His work focused primarily on the population of India and Pakistan from 1889 to 1941. The discussion on migration was part of his whole work. In another work (1954) he has considered internal migration in respect of urbanization, which helped a lot to the researchers in studying migration problem.

Zacharia’s (1964) book is a pioneering work of demographic aspects of internal migration in the Indian subcontinent and describes the pattern of inter-state and intra-state migration in the area on the basis of migration by the age and sex.


Among studies carried out on the state level migration in India, the important names are Ghosh and Chakraborty (2010), Dwivedi (2012), Keshri and Bhagat (2012), Kundu and Ray Saraswati (2012). Most of the literature on rural-urban migration builds on work of the Todaro model (1969) and the Harris-Todaro model (1970) and tests its validity in various countries, contexts and using its assumptions, hence focus
mostly on pull factors, with few studies focusing on push factors. Being focused on push factors, the importance of family considerations in mobility decisions of rural to urban migrants in India was investigated by Banerjee (1981), Banerjee and Kanbur (1981), Banerjee (1984, 1986 and 1991).

The cause and consequence of labour migration is discussed by Conell et al. (1976), Srivastava (1999), Viajanyanta (1998), Sarodamoni (1995), Breman (1996), Deshingkar (2003) and many others. Several authors have studied the cause and consequence of international migration in India and states. Among them, Guha Roy and Datta (1995), Chakraborty, Gupta and Bandyopadhyay (1997) and Sekhar (1993) are worth mentioning.


Literature is still expanding as researchers are continuing their work on migration issues. The review of literature also reveals that the empirical studies in this field focusing India are considerable. However, the works focusing on inter-regional and intra-regional migration in India is thin. Recently, the present author, along with others (Kundu, Haldar and Chakraborty, 2008) has made a very modest attempt in this area. In another work the present author along with other (Kundu and Chakraborty, 2010) have examined the impact of economic reform on inter-regional migration.

However, to the best knowledge of the present researcher, till date no detailed and comprehensive study has been carried out focusing on inter-regional and intra-regional migration in India covering the period 1951-2001. The present dissertation has made an attempt in this regard by conducting a comprehensive and in-depth
analysis of the inter-regional and intra-regional migration in India during the five decades (1951 to 2001) and tries to fill some of the gaps in this area.

Chapter-3 discusses the trend and pattern of the inter-regional migration in India during 1951-2001. Before focusing on the study of the inter-regional migration in detail the chapter first divides Indian states into six different regions according to their geographical positions. The regions are Northern region, Central region, Southern region, Western region, Eastern region and North-Eastern region. Table-3.1 presents the list of states and union territories included in six regions.

**Table 3.1: List of Regions, States and Union Territories**

<table>
<thead>
<tr>
<th>Regions</th>
<th>States</th>
<th>Union Territories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Region</td>
<td>Haryana, Himachal Pradesh, Jammu &amp; Kashmir, Punjab, Rajasthan</td>
<td>Delhi, Chandigarh</td>
</tr>
<tr>
<td>Central Region</td>
<td>Madhya Pradesh, Uttar Pradesh</td>
<td>-</td>
</tr>
<tr>
<td>Southern Region</td>
<td>Andhra Pradesh, Karnataka, Kerala, Tamil Nadu</td>
<td></td>
</tr>
<tr>
<td>Western Region</td>
<td>Gujarat, Maharashtra</td>
<td>Goa, Daman &amp; Diu, Dadra &amp; Nagar Haveli, Lakshadweep</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>Bihar, Orissa, West Bengal</td>
<td>Andaman &amp; Nicobar Islands</td>
</tr>
<tr>
<td>North Eastern Region</td>
<td>Assam, Tripura, Manipur, Nagaland, Meghalaya, Sikkim, Mizoram, Arunachal Pradesh</td>
<td></td>
</tr>
</tbody>
</table>

Source: Prepared by the author

For the present study we use data based on “migrants classified by place of last residence and duration of residence in place of enumeration” for the period 1971-2001. But for 1951-61, data used are on “migrants classified by place of birth and duration of residence in the place of enumeration”. As our study illustrates decadal migration during the fifty year period from 1951 to 2001, the data are based on 1961, 1971, 1981, 1991 and 2001 Censuses. The data pertain to 0-10 years for 1961 and to 0-9 years for the rest of the period, as total figures include data for migration during 10 plus years also.
The chapter has also discussed both the in-migration and out-migration patterns of the six regions over the fifty year from period 1951-61 to 1991-2001 and discussed the net migration.

Over the decades it is found that there exists a two way flow of migration between the North-Central, West-Central, South-West and North East-East. This pattern is followed over the decades. The Northern region contributed a significant proportion of migrants to the Central region and the reverse also at place. Though the share of the Central to North did not change much, the share of the North to the Central declined over time. In the in-migration of the Western region, the Central region contributed more in proportion over the period, but the reverse flow is showing a decreasing pattern. The North-Eastern region got the migrants only from the Eastern region in significant proportion. The share of the Southern region in total in-migration of the West has come down over the period, but the reverse has gone up. The movement between the South-North and South-East is insignificant over the period.

Though the Northern region sent a considerable proportion of migrants to the West, the counter flow was insignificant. Northern region was a loser in 1951-61, but after that it became a gainer. This fact is supported by the increasing share of the North to its total out-migration and declining trend in share of its total in-migration since 1961-71. There is a big jump in the share of the Eastern region to the total in-migrants of the North. Western region retained its migrants almost same in proportion in 1991-2001 compared to 1951-61- indicating a stability within the region over the decades. The major change in the in-migration stream of the West is a huge rise in the share of the Eastern region. The Eastern region started sending migrants to the North and West in significantly high proportion during 1991-2001. The share of the Eastern region itself to its total out-migrants tend to fall over time since 1961-71, though there was no change as such in the share of in-migration (Figure-3.8). Hence, the region started losing despite of a gainer in 1951-61.

According To Crude Net Migration Rate, the Western region was a net gainer throughout the period (Though it was at the losing end to the Eastern region in 1951-61. The Northern region was a loser in 1951-61, but became gainer afterward. It is also found that southern and central region reveal a consistent loosing pattern. Thus,
the Western region, Northern region and Eastern region have also shown a very interesting and significant pattern over the five decades. These states have the maximum share of the total inter-regional migrants in India in the later decades (56.10% during 1991-2001). The subsequent chapters focus on these three regions for further in-depth study.

Chapter-4 discusses the features of three regions – Northern, Western and Eastern. These regions are the cluster of some States and Union Territories as discussed earlier and self explanatory about their geographical location in the map of India. The Northern and Western regions are somehow the neighbouring regions by the convergence of the geographical boundary of Rajasthan of the Northern region and Gujarat of the Western region (though there is a large distance among the other states). But the Eastern region has no attachment with the other two regions in the map, and the physical distance is also notably high. Despite of this deterrent factor, a large number of migrants moved to the Western and Northern regions from the East. To analyse this migration in this chapter we will first focus on general features of these regions with the features of internal migration in and the inter-regional migration between the three regions.

Nearly three-fourth of India’s population resides in rural areas, as the share of population residing in rural areas is 72.18% and in urban areas are 27.82 (Table-4.4). Both the Northern and the Western region have urban dwellers more in proportion than all India estimate, but it is only the Eastern region that has proportion of urban population far below the all India value. The share of urban population to total is almost double in these two regions compared to the Eastern region. As urbanization in the other way means the development of a region, the Northern and Western region are more developed than the East.

On a close look at the sector wise growth rate of the economy of three regions, it is found that apart from the tertiary sector, each sector has experienced a fluctuating trend across three regions. Earlier, the Northern region has the maximum growth rate of NSDP, across all the sectors and per-capita income as well. But the picture of the
The Eastern region is at the opposite side. The Western region recorded an average growing pattern. Because of the green revolution introduced in India in mid 60’s of 20th century, the Northern region reaped the maximum benefit of this and it is reflected in the growth rate of the primary sector, which is as high as 5.16%. It has also impact on the NSDP and per-capita income as well and they are higher compared to the rate in other regions. During the 80’s when economic reform in India took place, the growth of secondary and tertiary sector has experienced a jump. But in the following decade, 1991-2001, the growth rate of secondary sector has declined largely in the Western and Northern region, and marginally in the Eastern region.

In the Western region, almost 47% of total population is worker. Here in the urban areas 34% population are workers, compared to 48% in rural areas. The total WPR is 36% in the Eastern region, followed by 35% in the Northern region.

If we look at the industry wise share of each region we can easily find out that, apart from the prime engagement in the compulsory defense of our country, the Northern region has lion share in Agricultural sector and Electricity, Gas and Water supply. The Eastern region left behind the others in Mining; Manufacturing and Repairs and Trading sector. Where the Western region is the prime holder of the service sector: Hotel and Restaurants; Transport, Storage and Communications; Financial Intermediation, Real Estate, Renting and Business Activities.

The Eastern region has experienced a lower share in 2001 compared to 1961, indicating a down trend in the growth of migration to the Eastern region. But for the Western and Northern region, the shares of migrants to all India have gone up very largely in the decade 1991-2001 compared to 1951-61.

A look at the proportion of migrants, who have come for a very short period to the total decadal migrants, reveals that the proportion has come down in each region as well as India in 2001, compared to 1961. In 1961, the share for the Northern and Western region was more than 20% and in 2001 was be more than 10%. Sex-ratio of the migrants of the Eastern region is very high followed by the Northern and Western region. The sex-ratio has increased marginally during the fifty year period in case of
migrants in the Western and Northern region. There was also a marginal increase in the sex-ratio of short duration migrants.

A detail analysis about the streams of all internal migration in India for duration of last residence 0-9 years, in the three regions over the fifty year time period from 1961 to 2001, reveals that R-R is the main stream of migration followed by R-U. It can be noted that the major change in the urban settlements of the migrants is only observed in the Western region, which may be as a consequence of urbanization.

On a stream wise discussion we find that R-U and U-U are the main streams of migration from the Northern and Eastern regions to the Western region. In case of inter-regional migration from the North, the share of migrants in R-U and U-U streams did not change much. But from the East, during the later decades, R-U stream dominates over U-U. Hence, Northern and Eastern region had sent migrants to the urban West many times more than rural. From the North, migrants had their origin mostly in the rural areas throughout the period. But, migrants from the East had their origin mostly in urban areas till 1961-71.

R-R and U-U are the most important streams of inter regional migration in the Eastern region during the later decades. Migrants came from rural and urban areas almost equally in proportion and they settled mostly in rural areas.

After analyzing the status of three regions on the basis of the inter-regional migration, we have found that there is only one region (Western region), which has positive Net Migration Rate over the decades and from both Northern and Eastern region (except the East in 1951-61). The Northern region got more migrants than sent to other regions since 1981-91. That is in the last two decades Northern region was a net gainer in case of inter-regional migration between these two regions. But the East recorded a loss over the decades except 1951-61, indicating a serious socio-economic change in the region since 1961-71.
Thus, Northern region is a gainer from the Eastern region in all the decades since 1961-71. However, the Western region is a gainer from the East (except 1951-61) and North in all the decades of our fifty year study period.

**Chapter-5** is a discussion on the reasons of migration. It develops a framework based on the Harris-Todaro model.

Economic factor is an important player in case of movement of people from one area to another. To analyze migration due to economic factor, first comes the point of income or the wage from employment and earning from business. These earnings differ from region to region depending on its development status. Normally, people move from less developed region to a more developed one. Harris-Todaro model deals with the fundamentals behind rural-urban migration on positive difference in expected income in the modern (urban) sector over the primitive (rural) sector. But researchers have ended up with different results in applying the model in their study.

The chapter attempts to formulate a framework based on Harris-Todaro model, presuming the inter-regional migration, where people move from less developed region to a more developed one. Following Harris-Todaro (1970), migration proceeds from less developed regions to more developed regions (equivalent to rural – urban sectors), in response to differences in expected income rather than actual earning. The basic concept is that migrants consider the various opportunities available to them in the less developed and more developed regions, and choose the one that maximizes their expected gains from migration. Expected gains are measured by the difference in real incomes between the two regions, and the probability of a new migrant to get a job in the more developed region. It is assumed that the members of the labour force, both actual and potential, compare their expected incomes for a given time horizon in the more developed region with prevailing income in the less developed region and migrate if the former exceeds the later.

The main assumption of the model is that the migration decision is based on expected income differentials between less developed and more developed areas rather than just wage differentials. This implies that migration from a less developed area to a more developed area, in a context of high urban unemployment, can be economically
rational, if expected income in the more developed areas exceeds expected income in the less developed areas. That is, migration from less developed area to more developed area will continue as long as there is a positive expected income differential.

Let $Y_l$ and $Y_m$ be the per-capita incomes in the less developed region and more developed region. Let $Y_l$ be downward flexible and marked determined such that everybody is employed at that income (or wage) level. $Y_m$ be institutionally determined and fixed. Let $p$ be the probability of finding employment in the more developed region. It is equal to $(1-q)$, where $q$ is the rate of unemployment in this sector. Thus, for an individual in the less developed region, the post migration expected income is given by the wage in the more developed region times the probability of finding employment. It is in this case, $Y_m p$, or $Y_m * (1-q)$. It is worthwhile for an individual to migrate as long as this expected income exceeds the current one ($Y_l$). Migration will continue to occur as long as the following inequality holds: $Y_m * (1-q) > Y_l$ \(\text{(5.1)}\).

Applying this framework, in the present context, we will attempt to estimate the difference between the left side over the right side (i.e. $Y_m * (1-q) > Y_l$), and use this as a representative measure of the strength of the driving force of inter-regional migration.

To estimate the model the data on per-capita income and the rate of unemployment are required. The details of these two data sets are presented in the appendix. Per-capita income of the migrants receiving region or the more developed region here is the major determinant of movement of population between the regions. The rate of unemployment is a deterrent factor in terms of migration. Higher is the unemployment rate, lower is the probability of a migrant to move to the destination. In the process of migration, a migrant takes into account various risk factors - physical, financial and psychological. In this model all these risk factors are hidden within the probability of being unemployed in the destination, after migrating.
However, the results based on the model are likely to underestimate the strength of the force of migration since the unemployment rate in the less developed region is ignored and the informal sector job creation in the developed region is overlooked.

It is found from the results (Table-5.3) that in all the cases and in all the time periods, irrespective of the methods, the differences in economic opportunities in the Northern region over the Eastern region are significant. It worked as the driving force to the migrants who came to the Northern region, from the East. So migration from the Eastern region to the Northern region will continue so long as the difference in economic opportunity is positive. There is a constant positive difference in the economic opportunity in the Western region over the East (Table-5.4). The process has ended up with almost double income opportunity in the Western region compared to the East, in 2001. This has worked as the driving force on the migrants from the Eastern region.

The difference in economic opportunity in the Western region over the Northern region is positive (Table-5.5). In most of the cases we find a positive difference, which leads to pull migrants from the Northern region to the West. Though, in some cases in 1971, 1981 and 1991 the results are not as expected for all the methods used. Perhaps this may be due to the differences in methods we used. As most of the migrants entering the Northern region have fared well in getting a high paid job there, the process continues with the information of the same to the residents in the native place. Higher per-capita income added with moderate rate of unemployment in Western region, leads to pull migrants from the North and the process will continue as long as the difference in economic opportunity in the West will be positive.

The analysis of the results based on Harris-Todaro model strongly suggests that economic force has played a very important role in the movement of the population from the Eastern region to the Northern and Western regions and also from Northern to the Western region. Thus our results do not contradict the validity of the Harris-Todaro framework. Only the exception holds in case of migration from the Eastern region to the Northern and Western regions during 1951-61. The result here does not
match with the reality, where the Eastern region is a gainer from both of the two. We have tried to offer explanation further on this issue.

**Chapter-6** is a continuation of explanations of inter-regional migration in the three regions. The chapter has a discussion on the basis of the reasons provided in the Census of India for different years. We have considered five reasons, -‘economic factor’, ‘education’, ‘family moved’, ‘marriage’ and ‘others’.

A clear picture of inter-regional migration to the Northern region from the Eastern reveals that better employment opportunity followed by ‘family moved’ are the major players behind migration. Though the other reasons have some significance in 1981, over the period it also turns out to be employment. It is found that whereas 48.69% of the migrants are coming for better economic opportunity in 1981, it has been increased to 53.95% in 2001 (as evident from Figures- 6.1 and 6.2). More than 30% of the migrants have stated ‘family moved’ as a reason of migration throughout the period 1981-2001.

A close look at the reasons of migration from the Eastern to the Western region shows that in 1981, 44.21% of the migrants moved due to ‘economic activity’ factor, 26.90% due to ‘family moved’ and 15.53% for ‘others’ reasons. In 1991, the main reason for migration is identified as ‘economic factor’ (52.74%) and ‘family moved’ (23.80%). A significant proportion of migrants moved due to ‘marriage’ (10.29%) in 1991. In 2001, the share of ‘economic factor’ as a reason of migration has increased a lot (64.26%), due to a declining share of ‘family moved’ and ‘others’ factors.

It is found that inter-regional migration from the Northern region to the Western region took place mainly due to ‘economic factor’ and ‘family moved’ (both shared more than 30% of migrants). But, ‘marriage’ has also a role behind. ‘Others’ have significant role as a reason of migration from the Northern to Western region in 1981, but the role has declined in the later decades.
Our analysis in this chapter reveals that ‘economic factor’ is the major reason of migration from the Eastern region to the Western region. Its percentage share is higher in case of R-R and R-U streams, indicating that more people from rural areas moved due to economic factor than urban, in proportion to the total. The R-U process can be explained by Todaro model (1969) as a “migrant takes into account the available various labour market opportunities such as between the rural and the urban sectors and chooses that particular one which maximizes his expected gains from migration”. It also supports Ravenstein’s law that “Migrants proceeding long distances generally go by preference to one of the great centers of commerce and industry” (Ravenstein, 1885, 1889)

‘Family moved’ has an important role in all over the decades, specially, in case of U-R and U-U streams. ‘Others’ had a significant role behind all the streams during 1971-81, but over the decades its share has declined continuously, and it loses its importance in 1991-2001. A considerable proportion of migrants moved due to ‘marriage’ only in U-U stream only. Role of ‘education’ is very negligible. 

So far, the study has discussions on the inter-regional migration. Now the research will focus on intra-regional migration through Chapters 7, 8 and 9.

Chapter-7 embarks on the inter-regional migration. Intra-regional migration implies the migration between the states of a region. It is observed that the majority of the interstate out-migrants have moved to the bordering states, though the migration to non-bordering states has also been significant. Here we must note the enormous variations in the geographical sizes of Indian states. A migrant in smaller states can reach another state, thus qualifying as interstate migrant.

Delhi and Chandigarh are the gainers throughout the fifty year period. But, Jammu & Kashmir, Punjab and Rajasthan are at the losing end. Himachal Pradesh has in-migrants more in volume than out-migration during 1951-61, but the situation is just the opposite since 1961-71. Though Haryana remains a looser upto 1981-91, but during 1991-2001 it becomes a gainer. It indicates that Delhi, the country capital and
Chandigarh, the union territory of this region had attracted the migrants from other states of this region mainly because of their urban growth and development activities.

During the decade 1951-61 Delhi remained the most preferred zone with 38.63% of inter-state migrants of Northern region. During 1991-2001, Haryana and Delhi have the shares 31.70% and 22.14% respectively. In both decades Punjab and Rajasthan are the followers. Jammu and Kashmir remains the least sharer of the total intra-regional migrants in the two decades (1961-61 and 1991-2001), standing at 2.66% and 1.90% respectively.

The U-U stream was the major stream of migration to Chandigarh from all the states of this region and in all the decades (except Himachal Pradesh during 1981-91 and 1991-2001). The R-U stream also shared a significant proportion (except Delhi) of migrant in all the decades specially, from Himachal Pradesh and Rajasthan. The major rise in this case was mainly in the reform decade, indicating that there was a significant increase in the movers from rural areas in the reform period.

We observe that R-U and U-U were the major streams of migration to Delhi. Haryana, Himachal Pradesh & Rajasthan contributed mostly in R-U stream whereas the U-U stream was most important for Jammu & Kashmir and Punjab. The reform decade, from all the five states there was an increase in the movers from rural areas and to urban.

The R-R was an important stream of migration to Haryana. Punjab & Rajasthan and contributed mostly in R-R stream. In case of migration from Jammu & Kashmir despite of U-U, U-R stream was also very important. Himachal Pradesh contributed in all the streams except U-R in almost same proportion.

Over the decades Dadra & Nagar Havely and Goa, Daman & Diu were the two who have gained in net in case of intra-regional migration continuously. Lakshadweep was a looser only during 1951-61 but gained otherwise. Gujrat recorded a loss in total net-migration in each of the first three decades, but started gaining thereafter. Maharashtra attracted more migrants towards it than sent during the first three decades, through
which recorded a gain in net migrant. But during 1981-91 and 1991-2001, the state recorded as a losing state. So in each decade either it was Gujrat or Maharashtra in the gaining side, as because the other states/union territories of the region are very negligible in geographical area and contributed almost negligible to share of migrants (except Goa, Daman & Diu) in the regional total.

The volume of intra-regional migrants in Maharashtra is 67.24% in 1961. It has come down to 42.09% in 2001. Lakshadweep has the least share in this regard. It was nil in 1961 and 0.12% in 2001. The share of Gujarat jumped to 47.27% in 2001, from 31.34% in 1961. The volume of short duration migrants and the percentage share of it with respect to total decadal migrants in the states of the Western region shows that Lakshadweep has the greater share (57% in 2001 and 50% in 1961). Next, Gujarat (19.33%) in 2001, and Dadra & Nagar Haveli (45.24%) in 1961 come. It is clear that except Lakshadweep, the share of each state in this regard has declined over decade.

It is clear from the analysis that R-R was the major stream of migration to Dadra & Nagar Haveli though with a declining share in the consecutive decades. The urban settlers from rural & urban areas came in a significant proportion during the period 1981-91 and 1991-2001. Migrants from Gujarat came to Goa, Daman & Diu in R-R and U-U streams. But from Maharashtra to Goa, Daman & Diu U-U is the major stream, followed by U-R.

Looking at the intra-regional migration in the Eastern region, the chapter observes that Bihar was the only state who had lost in net migration in case of intra-regional migration in Eastern region over decades. West Bengal and Andaman & Nicobar Islands were at the gaining end throughout the five decades. Here Orissa is revealing a mixed pattern.

The volume of intra-regional migrants in each state of the Eastern region, and its share to the regional total shows that West Bengal is the major state in attracting the migrants from all the other states. Its share to the region was 75.57% in 1961, but it declined to 61.72% in 2001. Next, the position of Bihar and Orissa comes. But the shares of the two states have increased over time.
The share short duration migrants’ is higher in Andaman & Nicobar Islands, followed by West Bengal, during both the time period. But over time the share has declining trend. The share of Andaman and West Bengal in 1961 and 2001 are 41.53% and 20.23%, 17.47% and 15.34% respectively.

In case of migration from Bihar to Orissa, a majority of the movers moved through R-R stream, followed by R-U and U-U. Thus it is clear that R-U was the major stream of migration to West Bengal. R-R stream was the second important stream. There was a significant rise in the U-U stream of migration from Orissa in the consecutive decades. R-R was the most important stream of migration to Andaman & Nicobar Islands but with declining share over the decades. The R-U stream was also an important one, with a significant proportion of migrants moving in this stream in most of the five decades. However, this union territory has a very small proportion of Intra-regional migrants.

Chapter-8 is an attempt on the reasons in case of intra-regional migration (movement between states of a region), based on the Harris-Todaro model. The results are estimated on the basis of the framework, through equation \[ W_v^*(1-q)-W_u > 0 \] … (8.1). Here \( W_v \) and \( W_u \) are the per-capita income of the more developed and less developed states respectively and \( q \) is the rate of unemployment in the more developed state.

However, it should be pointed out that the results are likely to underestimate the strength of the force of migration since the unemployment rate in the less developed state is ignored and the informal sector job creation in the more developed state is overlooked.

It is found from the results that since its existence in the 1971 Census period, there is a positive difference in opportunity in Chandigarh (Table-8.3) over all the other six states of the region. The union territory provides more than double income opportunity to an individual, compared to Haryana, Jammu & Kashmir and Rajasthan. Higher is the positive value, more is the strength of the driving force to pull migrants. Inspite of high unemployment rate prevailing in Chandigarh, many of the migrants
have succeeded to get a job in any one of the sectors of the economy and the information about their high payment compared to native place leads to more migration from the other states of the region. As Punjab and Haryana are the motherlands and neighbours, it is easier to get information about the high paying job opportunities in Chandigarh. And failing to get this one can return back more easily with minimum financial risk. This leads to more and more migration and it will continue till the difference in expected earnings will be positive.

It is found that there is a positive difference between the expected income in Delhi and the actual earning in Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan (Table-8.4). The expected income is more than double than the actual earning in Jammu & Kashmir and Rajasthan. And for the other states the difference shows a diverging trend. This leads to more and more migration to the former (Delhi), as the time proceeds. Migrants settled in the destination of better wages and employment opportunities have pulled others from the place of origin through the network of friendship or kinship. This leads to further migration and the process will continue till there is a positive difference in economic opportunity.

It is observed that there is a positive difference in expected income in Haryana over Himachal Pradesh, Jammu & Kashmir and Rajasthan throughout the period of our study (Table-8.5). Over the decades the value increases indicating more and more better opportunity in Haryana, despite of all the risks involved. This leads to push people from the native state to the destination. Here also our findings of the framework holds true in explaining the migration process between these two states in Northern region. The migration from Punjab to Haryana could not be explained by the framework. We have attempted to offer some explanations behind this.

On a look at the difference in expected earning in Maharashtra over Gujarat (Table-8.8), it is found that the difference is positive and over the decades the value has increased. The positive value here is the strength of the driving force of migration. The results of the framework presented here, indicates an increased volume of migration from Gujarat to Maharashtra, over the decades.
The results based on the model are not in conformity with the actual pattern of migration which shows that Maharashtra was sending more people to Gujarat than it received during 1981-91 and 1991-2001. Why is this so? A modest effort has been made in this chapter to provide reasons for this.

Goa, belonging to the Western region is one of the top states as per per-capita income. So, considering the fact of a high rate of risk involved through the rate of unemployment, the expected earning in this state is higher than the actual earning in Gujarat. This acts as a push to migrants from Gujarat to move to Goa. Among the migrants to Goa, many are employed in the high paying job there. They have their own connections in many forms with the place of origin. This can pull more people to migrate to Goa, for a better earning and livelihood.

It is observed from that there exists a positive difference in economic opportunity in West Bengal over Bihar. It indicates a positive force that can push migrants from Bihar to have a destination in West Bengal for high paying work and better livelihood. The migration process will continue as long as there is a positive difference in expected income. Migrants who have already settled in the destination can pull people from the native place by sharing information with the relatives about the actual scenario in the destination.

Difference in economic opportunity in West Bengal over Orissa (Table-8.12) shows that the value is not only positive, but also increasing over time (except 1971-81), indicating more strength to pull migrants from Orissa. During 1971-81, West Bengal sent more migrants to Orissa than it received. This could not be explained using this framework based on the Harris-Todaro model. Explanations have also been offered for this type of migration pattern between West Bengal and Orissa.

Looking at Orissa and Bihar, it is observed that the difference in economic opportunity in Orissa over Bihar is positive (Table-8.13). Orissa provides expected earning of an individual more than the actual earning in Bihar. This difference is the
main driving force of migration to Orissa. So, the migration process will continue as long as the difference in expected earning is positive.

**Chapter-9** is a continuation of the earlier chapter and is an explanation on the reasons of intra-regional migration based on data recorded in the Census of India (as discussed in **Chapter-6** in case of inter-regional migration).

The majority of the migrants from all the states of the Northern region (other than Himachal Pradesh) entered Chandigarh due to ‘family moved’. ‘Economic factor’ played the second important role. ‘Marriage’ and ‘others’ are the next important reasons behind migration to Chandigarh from the other states of the Northern region. It is notable that ‘education’ played a little bit significant role behind migration from Delhi and Haryana, in the reform decade only (11.36%, and 11.81% respectively; Table 9.1).

‘Family moved’ was the major player behind the movement of people from Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan to Delhi in total, R-U and U-U streams during three decades with little exception (from Himachal Pradesh and Jammu & Kashmir in R-U stream during 1971-81 where ‘economic factor’ played the major role). ‘Economic factor’ was the second most important reason for migration to Delhi (average 26.86%).

‘Marriage’ is an important determinant of migration to Haryana (Tables-9.14 to 9.18); except from Jammu & Kashmir especially in rural sector. Otherwise, ‘family moved’ is the major player behind migration, mainly in R-U and U-U streams. ‘Economic factor’ has significant share in all the decades especially, in case of migration from Himachal Pradesh and Jammu & Kashmir in 1971-81. ‘Marriage’ is the major player in case of migration from Rajasthan and Punjab, but it was ‘family moved’ from Himachal Pradesh and Jammu & Kashmir.
The main reason for migration from the other states of the Western region to Dadra & Nagar Haveli is related to the factors named ‘economic factor’ (the share increased to 34.70% in 2001 from 29.30% in 1981 in case of migration from Gujarat, where it became 49.87% in 2001 from 28.45% in 1981 in case of migration from Maharashtra), followed by ‘family moved’, and ‘marriage’. It is also seen that over the decades, the role of economic factor outweighs the role of family moved. Table 9.21 observes that over the decades, there is a huge increase in the proportion of migrants moving out of ‘economic’ reason especially in R-R & U-R streams, from Maharashtra to Dadra & Nagar Haveli.

Over the decades, it is found that (Table-9.22) people migrate from the other parts of the Western region of India to Goa, Daman & Diu mainly due to ‘family moved’ factor. People migrate here from Gujrat and Maharashtra mainly due to that reason (average 35.30%, and 36.45% respectively), followed by ‘economic factor’. The role of economic factor as a reason of migration from both Gujarat and Maharashtra has experienced a significant increase during 1991-2001 (from 23.77% and 24.78% during 1981-91 to 35.74% and 36.20% during 1991-2001 respectively).

The main reason behind migration from Maharashtra to Gujrat (Figure-9.1) is concentrated around ‘family moved’ factor (32.57% in 1971-81, 34.27% in 1981-91, and 44.15% in 1991-2001), followed by ‘economic factor’ and ‘marriage’ respectively.

The major reason behind migration from Gujrat to Maharashtra (Figure-9.2) is ‘family moved’ (32.75% in 1971-81, 29.96% in 1981-91, and 39.52% in 1991-2001), followed by ‘marriage’ (20.44% in 1971-81, 25.69% in 1981-91, and 23.06% in 1991-2001) and ‘economic factor’ (20.75% in 1971-81, 22.03% in 1981-91, and 22.56% in 1991-2001) respectively.

Reasons behind migration from Bihar to Orissa (Figure-9.3) are as follows. ‘Family moved’ factor (33.67% in 1971-81, 27.70% in 1981-91, and 27.76% in 1991-2001) is the major reason followed by ‘economic factor’ (20.41% in 1971-81, 24.25% in 1981-
Table 9.28 reveals that the main reason for migration from Bihar and Orissa to West Bengal is ‘economic factor’. The second and third reasons for migration, from Bihar to West Bengal, are ‘family moved’ and ‘marriage’ respectively. But in case of migration from Orissa to West Bengal, the second and third reasons are ‘marriage’ (average 24.19%), and ‘family moved’ respectively. As West Bengal is the centre of industry and commerce in the Eastern region, migrants from the other states moved to West Bengal in search of or to take up employment and the share increases over time. This is in tune with the observation made by Ravenstein. ‘Migrants proceeding long distances generally go by preference to one of the great centers of commerce and industry’ (Ravenstein, 1889).

From Tables 9.31 to 9.34, it is observed that the main reason for migration to the Andaman & Nicobar Islands from the other states of the Eastern states is ‘economic factor’. The second important reason is ‘family moved’. ‘Others’ and ‘marriage’ are the next two important reasons behind migration in this case.

There are a considerable number of studies regarding the migration aspect of the Indian population. However, there is a very few studies on focusing on inter-regional and intra-regional migration in India. Moreover, to the best of the knowledge of the present researcher, till date no comprehensive study has been carried out on inter-regional and intra-regional migration in India covering the fifty year period from 1951 to 2001.

The present author, along with others, has made a very modest attempt in this area. Recently, Kundu, Haldar & Chakraborty (2008) have made a study of the inter-regional migration in India for the period 1951-61 to 1991-2001. Kundu & Chakraborty (2010) have also examined the impact of economic reform on inter-regional migration.
The present dissertation has made an attempt in this regard by conducting comprehensive and in-depth analysis of the inter-regional and intra-regional migration in India during the five decades (1951 to 2001) and tried to fill some of the gaps in this area. In this dissertation, the author has developed an analytical framework based on the Harris-Todaro model to explain the inter-regional and intra-regional migration in India, considering that migration takes place from the less developed region/state to the more developed region/state. In this connection, the researcher has taken pains to estimate the unemployment rates of the regions and states, using huge data available from the NSSO (National Sample Survey Organisation), India. Since the data were not in the required form, the researcher has used different methods for estimating unemployment rates, necessary requirement for the Harris-Todaro type of approach. It is important to mention that the results estimated from the study do support or at least do not contradict the model. In most cases inter-regional and intra-regional migration could be explained with the framework based on the Harris-Todaro model. We would like to make a humble submission that we have tried to offer explanations as far as possible in the cases where the results are not in tune with the migration pattern as per Census. In addition the dissertation has also investigated the reasons for migration in general and stream wise using the Census figures which are available since 1981.

The present dissertation which is an attempt to analyse the inter-regional and intra-regional migration in India during the five decades (1951 to 2001) provides insights on the migration issues. Thus, the dissertation makes a modest contribution to the expanding migration literature in general, and on India, in particular.