Chapter
1

Introduction

1.1 Introduction

Regional imbalance in a country is natural due to unequal distribution of natural resources and or man-made factors in the sense of neglect of some regions and preference others for investment and infrastructural facilities. Almost all the migration theories highlight that migration is a response of human beings towards the prevailing disparities between the origin and the destination of the migrants (Ravenstein, 1985; Todaro 1969; Harris and Todaro 1970; Lucas 1997). The level of development gap between the economies and also between the regions within an economy induces an individual to migrate from a region where opportunity to find jobs is lower to a region where job finding is easier. if an individual cannot find job in her current location, then she can decide to move out of that place and move to some other region in quest of employment. This phenomenon is regarded as 'labour migration'. We usually define migration as a relocation from one migration defining area to another, often crossing administrative boundaries made during a given migration interval and involving a change of residence[1].

Even in a situation where an individual is indifferent between the two regions in terms of employment opportunities still there can be an incidence of migration. In that case, the wage difference between the two regions determines the direction of migration. The labourers migrate from a region of lower wage rate to one of higher wage rate. The Harris-Todaro model of development (1970) also suggests that higher expected earnings in the urban sector compared to that in the rural sector is used as a precondition for migration. The continuous migration creates competition among the potential workers which lowers the wage rate. This process continues unless the wage-gap between different areas is

[1] The United Nations proposed this definition of migration in 1993.

eliminated. Thus labour migration can achieve balance in the wage rates of the two regions. This phenomenon is known as '*convergence*' in literature. But in reality whether this type of inter-regional convergence occurs or not is a highly debatable issue. An interesting implication of the Harris-Todaro model (1970) is that labour migration can be effectively used for development of the region to which the workers migrate. But if this is true, then it would never lead to convergence of the two regions. The development gap between the two regions would diverge although the wage gap might converge. Further, competition among the migrants while finding a job in another region involves an element of uncertainty. In this situation an individual calculates the expected earnings and when it exceeds the present earning, and then only they decide to migrate. Moreover, the job-search motive cannot be the sole cause for migration. The limit and extent of migration also rests on other factors like age, sex, level of education, caste, religion and socio-economic status of the migrants.

During the era of liberalisation the opening up of the Indian economy appears to be correlated with rising spatial inequality (Kanbur and Venables 2007). With the advent of liberalization, inequalities in the labour market have widened and the nature of the market has changed towards greater informalisation and casualisation. The informal production systems are more widely spread across rural and urban spaces. Thus finding a job is easier in informal sectors than in formal sectors. As a result the migrants from rural areas tend to take their first refuge in the informal sectors of urban areas. But, in general, informal sectors do not present a very good environment for work. It might adversely affect the satisfaction level of the migrants. Hence in such cases development with dignity may be a distant dream. But such problems are likely to be absent in the formal sectors where the participation of skilled and educated workers is high. In other words, the labour market under globalization is placing a higher premium on the skilled migrants. Moreover, in many situations the poor workers migrating from rural to urban areas access employment through a chain of intermediaries. Hence it can lead to exploitation of the poor workers by the

intermediaries.

At the same time growth in India and the demand for certain types of labour follow the needs for capital, both national and global. An implication of this need is the surge in demand for highly skilled workers, on the one hand, and a mass of low skilled, low paid, easily controlled and highly flexible workforce, on the other. This increase in demand cannot be met by local labour and hence, increased mobility of the worker is required. But the mobile workforce acquires highly dualistic characteristics. On the one hand, migration of workers in the upper segment of the workforce has increased. On the other hand, capital is seeking to acquire cheap labour either through a highly casualised and migratory labour force or through immobile and home- based workers whose reservation wage is very low.

Since the 1970s, the flight of villagers to industrial and high-growth areas have been a common phenomenon in many regions of India. This process has aggravated further since 1980s. The growing link between villages and urban centers in transforming the villages has been constantly debated in the literature (Gupta 2005; Sharma 2005; Rao and Nair 2003; Epstein 1973; Djurfeldt et al. 2008).

Migration, though a part of active livelihood tactics, is also determined by social context, norms and structures, composition of household, gendered ideologies, caste structure and social contracts and networks which determine who migrates and who can profit from opportunities arising elsewhere (Bora 1996). Poverty-push and prosperity-pull types of migratory movements are evident in various regions in our country. Among the four migration streams, the rural-urban migration stream is dominant, and also restricted to short distance movements as compared to other migration streams. On the contrary, during the post-liberalisation era, study of migration by Bhagat (2009), shows that pull factors such as higher income and employment opportunities have become more effective in influencing migration than the push factor such as poverty. Poverty is not found related to the increased out-migration at the state level. Neither per capita monthly expenditure (MPCE) nor social

categories of households indicates that migrant largely come from disadvantaged sections of Indian society. But this cannot be equally true about temporary or seasonal migration.

In India, migrants from rural areas constitute one-fifth of the total urban population (Mitra and Mayumi 2008). Although macro-level statistics such as the 2001 Census and the NSSO data, and micro level studies differ in their conclusions regarding the pattern of migration in India, circular migration and also rural-urban migration is becoming a major form of mobility amongst the poor in the poverty-ridden regions (Deshingkar and Start; 2003; Deshingkar and Anderson 2004). The movement of migrants is largely dictated by their initial resource endowments (both physical and human capital-based endowments), their social origin, the degree to which they can access formal or informal networks and other factors that influence their vulnerabilities, such as age and gender and the manner in which they get incorporated in the labour market (Mosse *et al* 2002).

The *remittances*[2] and savings of the migrants can also be helpful to improve the standard of living of the people of the recipient regions. Thus the cause, nature and extent of labour migration have its ramifications on the socio-cultural and political-economic environment of the state.

The location of West Bengal is unique. It is surrounded by relatively less developed states or countries. This leads to increase the immigration and in-migration to the states from these regions to take the opportunity of development in terms of employment, education, heath etc. On the other hand, the general perception is that industrialization is decelerated in West Bengal. This may be a cause for out-migration from the state. There are also some backward regions within the state. These regions are deficient in respect of better employment and production opportunities. The people of the backward regions are also less mobile due to the constraints such as skill, information dissemination etc. So, within the

[2] Remittance refers to the portion of migrant income that, in the form of either funds or goods, flows back into the place of origin, primarily to support families back home.

state, the people also migrate from these backward regions to relatively advanced regions. In this brief backdrop, the following questions are emerged:

- What is the trend and pattern of migration in West Bengal?
- Is there any evidence of high rate of out-migration from the backward districts to the developed districts?
- Are the backward districts experience more in-migration than out-migration?
- Do both in-migration and out-migration become higher in the developed districts compared to the backward districts?
- What are the factors that determine inter-district migration in West Bengal?
- What are the factors that significantly explain the migration of the member of the households?
- Which factors are crucial for determining the remittances?
- To what extent migration and remittances contribute to livelihood pattern of the migrant households?

The present research study seeks to address these and allied questions.

1.2 Overview of Literature

The Lewis model of development (1954) proposes that migration of surplus labour from the subsistence sector to the urban manufacturing sector creates surplus earning for the enterprises in the latter sector. This surplus can be used for capital formation and growth of the economy through reinvestment. Although this result has theoretical implications but the identification of surplus labour in the subsistence sector creates a huge problem. Amartya Sen is of the opinion that marginal product of labour hour can be zero at a point but the marginal product of labourers can be zero over a wide range. Using the concept of utility as well as disutility for labour hours, Amartya Sen has shown that existence of zero marginal product of labour is neither a necessary nor a sufficient condition for the existence of

surplus labour.

Dennett & Stillwell (2008) has argued that population migration research proceeds in two well defined directions. The first comprises of the external causal influences affecting migration behaviours. This is mainly concerned with the migration behaviours which are profoundly influenced by the characteristics of both origins and destinations. A second stream of migration research has focused on how migration behaviours might be affected by the attributes of the individual migrant such as age, sex, marital status, educational qualifications, religion, socio-economic status and family status.

Mukherjee (2001) focuses on the low quality migration from rural to metropolitan areas and highlights the resultant problems for both the migrant population as well as the metropolitan areas.

Using the NSSO 55th Round data, Shanti (2005; 2006) finds increasing levels of rural-urban migration among females for reasons of employment. The NSSO data highlight that of all the recorded migrants, migration for matrimonial connections has remained the most important category accounting for 90 per cent of the rural female migrants, with the 'search for employment' being the reason for migration for 18 per cent of such migrants, according to 1987-88 NSSO data, and 14 per cent in 1999-2000 (de Haan and Dubey 2006), while over 50 per cent of the urban male migrants quoted 'employment-related reasons' for migration. While economic opportunities evidently comprise the key reason for migration among labour migrants, field studies show a diversity of motivations for migration, which are shaped by conditions at both the origin and destination of migration and patterns of recruitment migration network (de Hann 1994). In a study, de Hann (1999) observes that migration instead of being a matter of choice for poor people, is the only alternative for survival after separation from the land and exploitation in their native places.

Deshingkar *et al* (2009) argue that a large number of the seasonal migrants, many among whom are SCs and STs, are poor, and for them, migration is more of a household

strategy for managing risk wherein one or more member(s) of the family leave the village to find work, and that this is a fundamental part of the their livelihoods. Whether or not seasonal migration is a coping strategy or becomes more accumulative depends on several factors like improved work availability, rising wages, cutting out of intermediaries, and improving skills.

Deshingkar and Start (2003) shows that more accumulative migration is occurring and that sending one or more family members to work in a remote location for part of the year has become a conventional livelihood strategy for many rural households. Amongst many rural households, migration is now viewed as a way of accumulating useful lump sum, rather than a means of survival, as was the case in the past.

In fact, the start of globalization and liberalization has led to the use of new technology in agriculture, resulting in increased unemployment in the countryside. Consequently, this has forced large number of the poor labourers and members of farming communities to migrate from their home to remote places in search of employment (Reddy 2003). Recent reports by UNDP reveal that without migration, a major section of the poor would not be able to afford any expenditure on healthcare, consumption and other basic needs, and would face the risk of falling deeper into poverty (UNDP 1998; 2009). In fact for many of the poor living in the underdeveloped areas, seasonal migration and travelling to distant areas for work are the only ways of accessing the benefits of growth in the other locations (Deshingkar et al. 2009).

Internal migration is viewed as an important factor in influencing social and economic development, particularly in developing countries. Indian census reports record that in 2001, 309 million people were migrants based on place of last residence, which constitute about 30% of the total population of the country. This is almost double the number of internal migrants as recorded in the census of 1971 (159 million) Lusome and Bhagat (2006).

Lusome (undated) examines the extent of employment oriented migration in India. It is found that the percentage is very small for employment oriented migration. However, an analysis of workforce participation using NSSO's 55th Round data on migration reveals that irrespective of the reasons for migration, work participation of the migrants increased steeply in the past migration period.

For India, the National Sample Survey Organization (NSSO) has in its 2007-08 survey, presented details of migration and of migrants from various vantage points such as that of in-migrants, migrating households, short-duration out-migration, and households with one or more out-migrating members and return migrants. According to NSS report, there were 324 million internal migrants in India in 2007-08, of whom140 millions were workers. The NSS figures for out-migrants from households present a set of estimates of both internal and international out-migrants. According to these figures, international out-migrants constituted only 3.8 per cent of the total number of out-migrants. Even on the household remittance front, the NSS estimates that international remittances comprised about half of the domestic remittances (Tumbe 2011).

This is not to deny the significance of international emigration, both in the national as well as regional contexts (Zachariah and Rajan 2011) and Tumbe (2011), but to draw attention to the fact that as compared to international migration, internal migration is numerically and economically much more significant, but there is virtually a total neglect of internal migration in policy discourses in India. The decision to migrate, taken by any member of household can be regarded as part of a mutual agreement between the migrant and his family members (Stark 1980; Lucas and Stark 1985; Stark and Bloom 1985; Stark and Lucas 1988). During the early period of migration, family supports the migrant by sending money or investing in the migrant's education.

However, once the migrant is settled in the destination place and secures employment, he starts remitting a part of his income to his family. This agreement yields

substantial benefit to both parties. It gives farming household access to a source of income unrelated to agriculture, a feature that is particularly useful in areas where the crop income fluctuates (Hoddinott 1994). It also permits them to overcome imperfections or duality in rural credit markets (Stark 1980; Cain 1981). The migrant gains support, both financially and morally, from his household while he establishes himself in an urban area and during his job search (Hoddinott 1992).

The migration of workers from India to other countries is not something new. The Ministry of Overseas Indian Affairs (MOIA), Government of India, maintains records of persons who obtain emigration clearances to work abroad. Earlier, destination of Indian workers mainly used to be the United States of America, the United Kingdom, Canada and other developing countries (Rajan 2010; 2011). The migration of Indians to the Gulf has a history of several countries. The initial flow of contractual labour flow from India started with a low profile, with just 0.16 million workers in 1985, then reached a peak with 0.44 million workers in 1993, then slowly declined, and is recently again witnessing an increasing trend with 0.37 million workers in 2002, and reaching a peak of 0.90 million workers in 2008(Rajan and Percot 2011). There are many papers that deal with international labour migration. Aneesh (2000) compares the on-line migration of labour through outsourcing activities in IT industries with the physical migration of labour to work on-site. Khadria (2006) mentions the prominent trend of unskilled and semi-skilled Indian labourers migrating to the Gulf during the 1970s owing to oil boom. Later on this trend was converted in the last decade to huge migration of Indian skilled IT professionals to the developed countries. For example, with the emergence of Bangalore as an information technology (IT) hub in India many IT professionals have migrated from different regions of India to Bangalore. Likewise, we observe that some regions are densely populated by the people belonging to a particular religious community. The migrant's sex is another vital attribute determining the extent of migration. Male workers migrate mainly to access employment

opportunities. But females migrate mainly on account of marriage. Thus the significance of these factors cannot be ignored. Labour migration also affects the growth level of a particular region. The classical growth theories have proved that resources in the capacity of migrants can be used by an economy for its development purpose.

India is the largest recipient of international remittances in the World (World Bank 2010) and host of the second largest domestic remittance market in the developing world. In 2007-08, The Reserve Bank of India (RBI) recorded $43.5 billion as 'private transfers to India'. Migrants' remittances, an old age-old phenomenon, have assumed great impact over the last decade in development studies. With the incidence of international and internal migration increasing, remittances are considered to be an "important and stable source of external development finance" for household in the source regions (Ratha 2003), reducing transient poverty, and at times, even structural poverty (Kapur 2004).

At the same time, remittances can also lead to the loss of financial independence, divert attention from productive investments, and due to the self-selection nature of migration, escalate inequality in source regions. NSSO's 64th Round survey on Employment, Unemployment and Migration in 2007-08 assumes great significance, as it collected nationally representative information on remittances at the household level for the first time.

Subsequently, the NSSO published a report titled "*Migration in India: 2007-08*" in June 2010, and it provided detailed information on migration and remittances spread across various socio-economic attributes. However, the report did not furnish estimates of aggregate volumes of domestic and international remittances at the state level or across household attributes and its impacts on particular state economy and household development.

Recent studies on these issues related to Indian economy have highlighted the positive impacts of domestic remittances on wealth creation and asset accumulation (Sasmal

2006) as well as enhancing teen schooling attendance (Muller and Shariff 2009). The use of remittances is diverse and they are usually deployed to address a hierarchy of needs (Deshingkar, et al., 2006; 2008). This also results in empowering the local economy to some extent and also affects it through changes in consumption patterns. On the other hand, investment side evidence is, however, mixed. Investment by migration households and land occurs sometimes and migrant income may also sometime be used to finance working capital requirements in agriculture. Proof from the other productive farm or non-farm venture is for the most part uncommon but a number of studies report such investment by a small percentage of migrant or return migrant families (Oberai and Sing 1983; Krishnaniah 1997; Sharma, 1997).

The NSS 64th Rounds provides information on the use of remittances. In this report, all households in urban and rural areas are taken together. The highest percentage of households reported expenditures on food, followed by expenditures on other essential consumption items, health and education and household durables related expenditures. These reports also show that major development projects launched soon after independence in India attracted all types of migrant labour from all parts of the nation, particularly from the less developed regions.

Some studies focused particularly on determinants of migration and remittances in India (Gupta 2006; Parida and Madheswaran 2011; Czaika and Spray 2013), and some of the studies dealt with the impact of remittances on household expenditure, saving, investment, economic growth and external balance of India (Nayyar 1994; Mallick 2010; Tumbe 2011; Parida and Mohanty 2013).

However, there are some studies at the regional level also. But most of these regional level studies related to remittance flow in India are mostly concerned with that of Kerala. The studies on migration from India and the resultant impact of remittances on socio-economic condition of the concerned households date back to mid-1970's when

many researchers tried to dwell upon this area concerning the condition of migrant households in Kerala. In fact several studies since 1970's have taken into account several dimensions of international migration from Kerala to Gulf countries and the impact of remittances received therefrom on socio economic and demographic characteristics of migrant households in Kerala. These studies have particularly shown the fact that such remittances received by the households in Kerala have mostly been used for purposes like construction of new houses, repairing of old houses, purchase of landed property and expenditure for observing social ceremonies such as marriage etc. (Mathew and Nair 1978; Kurian 1979).

Similarly, some research works in this field were concerned with the impact of remittances on household income, consumption level and have helped in the alleviation of poverty and unemployment in India (Gulati 1983; Prakash 1998). Some of the studies, however, have some peculiar findings regarding the gradual decline in individual remittance over time due to a fall in social bonding with the relatives in the sender countries (Stark 1978; Ghosh 2006). This is unlike the flow of other financial resources such as FDI and FPI (Frot and Santiso 2008)

Some studies are concerned with the nature of the flow of remittances over time. It was expected that short term migrant's remittances would be higher because of the desire of the migrants to repay intergeneration educational loan (Ghosh 2006). These issues are specially relevant for a country like India where migrants from one region to another, say, from less developed or backward regions to developed industrial regions had an intention to meet their short-term liabilities through their remittances (such migration are particularly observed from regions located in states like Uttar Pradesh, Bihar, Southern Madhya Pradesh and Rajasthan to developed regions located in states like Gujarat, Maharashtra, Punjab etc., (Bhagat 2009; Deshingkar and Akter 2009).

It has also been observed that inflow of such remittances could often push up the

land prices as well as the prices of construction materials, consumer goods, healthcare and education service in any region. So, such inflationary pressure out of such additional demand due to inflow of remittances adversely affected non-migrant households particularly belonging to low and middle income groups (Valatheeswaran 2016).

Typically such migration and flow of remittances, out of it have also some important bearing upon the demographic structure in a society. This has been established in some research works where it has been found that emigration from Kerala impacted the sex ratio in a family in favour of female members (Banerjee et al. 2002). These studies also indicated that such emigration could reduce the working age persons within households and could increase the percentage of children and elderly people as observed in Kerala (Zachariah et al. 2001). That remittances can also influence the asset structure of a household was also taken up by different researchers. Thus in many parts of Kerala these remittances have been invested for purchasing real assets such landed property, gold, housing etc. These financial assets were transformed into physical assets (Zachariah and Rajan 2011).

However, inflow of remittances cans also enhance the exchange the standard of living and quality of life thereby contributing positively towards improvement of Human Development Index of a region. This has happened in Kerala and many studies have hinted upon the impact of such remittances on improvement in quality of life, reduction in poverty and unemployment, improvement in income, consumption and savings and higher expenditure on healthcare and education service by the households (Kannan and Hari 2002; Pushpangadan 2012; Khan and Valatheeswaran 2016). Similar impacts have also been observed for Goa (based of Goa Migration Survey Data, 2011). In case of Goa more than 80 per cent of remittances were spent on educational services and basic consumption needs which were vital for improving the quality of life (Rajan and Zachariah 2011).

Sometimes these remittances have also been used for fulfilling the philanthropic or altruistic ideals of the migrants. By using Gujarat Migration Survey Data, it was found that

remittances were used for the construction of hospitals, schools, charitable organization for helping the poor and constructing places for worship (Shah and Dhak 2013). These studies have thrown some new lights upon the welfare maximisation or utility maximisation behavior of the migrants. It has been found that the behaviour has shifted from individual utility maximisation to family welfare maximisation. This family consideration received more importance in taking migration decision (Mincer 1978; Stark 1978; 1997; 1991; 1998; 2000; Stark and Levhari 1982; Banerjee 1984; Hoddinott 1992; Stark and Fan 2007; Kleinwechter 2010). So, this was in contrast to studies where migration decision is assumed to be depending purely upon individual utility maximisation (Todaro 1969). However, some studies have indicated that remittance behaviour is influenced jointly by altruistic and self-interest motives (Czaika and Spray 2013). Their study has particularly shown that though 'time' is an important determinant of remittance trajectories but the relationship is not very clear, that is, initially the flow might increase followed either by a downward trend or stability. In fact some complex context specific factors could explain more clearly the flow of remittances overtime (Czaika & Spray, 2013).

Some critics are of the opinion that these remittances can rarely benefit or improve the physical quality of life of the migrant households since the recipients might squander these income flows only for basic conspicuous consumption (Ratha 2013). But these views are also challenged by many other researchers since they believe that remittances are used for building human capital i.e. in area like health, education and nutrition (Adams. Jr. 2005; 2008). Some research works in this field have shown significant positive correlation between remittance income and health outcomes of the infants of the concerned family. Thus infants of some rural households in countries like Sri Lanka, Mexico are found to have higher birth rates and lower infant mortality rate. It has also been found in these studies that health related knowledge and consciousness remain higher in remittance receiving households compared to the non-remittance received households (Hildebrandt and

Mckenzie 2005). The incidence of propensity of child education has also been found to be higher among remittance received households compared to the non-remittance received households as observed in countries like Sri Lanka and Ethiopia (Dendir and Pozo 2005).

Some studies based on rural Pakistan also suggest that temporary migration has also led to higher school-level enrollment particularly for girls among remittance received households. Similar trends have also been observed in countries like India, Ghana, and Ethiopia, though in these countries remittance from internal migration was considered rather than international migration (Mansuri 2006).

There are distinct obligations for the States to perform vis-à-vis the provisions under the Directive Principle of State Policy are there in order to ensure that exploitation is avoided and equal rights are secured to all workmen. It can be seen that the State has followed a policy which keep labour flexible and its social wages low. The States has not implemented any law to regulate the minimum condition of work for migrants. It is known that existing laws which could benefit them are flouted, but there is no effort on the part of the Central or State governments to implement them (NCEUS 2007). In the urban informal sector, friends and relatives act as networks and the job market is highly segmented, and based around people on the same caste, religion and kinship (Gupta and Mitra 2002). Social networks also provide introductory money, related support, information, settlement and access to employments.

In any case, parts of the urban unorganised sector may be characterised by a high degree of organized movement, as within the provincial regions (Mazumder 1983). As for example, in the construction industry, 90-96 per cent of the workers are recruited through contractors. They generally settle the wage for the labourers and retain part of the labourers' wage, and are also paid by employers, and sometime also play supervisory roles (Vaijanyanta 1998).

The Contract Labour Act, 1979 and Inter-state migrant Workmen Act, 1979, show

that a contractor is required to be registered, but due to the high security deposits and drawbacks in the implementation of these Acts, very few contractors obtain licenses. Studies indicate that employers prefer migrant labourers, as they are cheaper; and since they work for short duration in an alien environment, they cannot develop any social relationship with the working place. Women migrants are the worst sufferers, as in spite of the enactment of the Equal Remuneration Act (1976), they are paid less than the male migrants (Pandey 1998). The wage structure in the public sector varies from project to project. Most of the contracts are given to private contractors, they bypasses all labour laws and minimum wage legislations.

The low wage structure of regular workers results from the unsteady demand, fragmented and unregulated nature of labour markets, dominance of temporary workers and the helplessness of workers (Ministry of Labour, Study Group of Migrant Labour 1991). This situation is true from migrant labourers also. Migrants lack any form of social protection, and remain out of reach of even the limited form of social protection measures that exist for their class of workers or citizens. Thus, they are not able to avail the food or cooking fuel subsidy, they are not even mentioned in the proposed National Food Security Act, their occupational and other health needs are unaddressed, and they are not able to access even those social security measures which are specifically designed for them, such as the Construction and Building Workers Welfare Fund (Srivastava 2011b).

In urban areas, the State has followed a strategy to make it economically unviable for labour to gain a long-term foothold in areas of accumulation. To this end, the State has not only withdrawn from efforts to provide affordable shelter and basic amenities to migrant workers, but it has also not put forth any effective strategy to make this happen (Srivastava 2011a).

Moreover, efforts to displace workers who may have gained such a foothold have actually increased (Mahadevia 2009). If the structural reality of migration has to be changed

to ensure that migration and inclusive development can go hand in hand, then the element of migration policy has to be debated which can addressed both the needs of development and the needs of migrants.

1.3 Gaps in the Existing Literature

From the brief survey of the existing literature on labour migration it is evident that most of the studies have measured the extent, trends and dimensions of labour migration in several states of India. There were hardly any studies that dealt with the issues of labour migration in West Bengal in depth, specifically in the relatively backward districts.

There were also a variety of studies that addressed the issue of labour migrating out from a particular region and seem to ignore the fact that along with out-migration there can also be the evidence of in-migration. We consider this to be a serious gap in the existing literature and therefore, seek to include the issues of in-migration in the present study. Different studies have found out the factors of labour migration in different regions of India. Now these determinants may not be uniform for all the regions of India. They can vary in terms of their level of significance, their magnitude and also in terms of their direction of influence in the context of the backward districts in West Bengal.

Although there are some evidences on the effect of remittances in the growth of an economy, yet we need more investigation in case West Bengal to enable an understanding of the direct and indirect impact of remittances. So, apart from looking at the effect of remittances on economic growth, it is really important to see its impact on the society i.e., how does magnitude of remittances affect the social indicators like education level, standard of living, income and wealth, poverty etc. The present study seeks to remedy most of these gaps in the existing literature.

1.4 Objectives of the Study

The basic objectives of the present study are:

I. *To study the magnitude, trends and pattern of labour migration in West Bengal as a whole and across districts of West Bengal.*

II. *To examine the determinants of labour migration across the districts and households in West Bengal.*

III. *To analyse the level, impacts and determinants of remittances of migrant households in West Bengal as a whole and in relatively backward districts of West Bengal.*

IV. *To analyse the livelihood pattern of sample migrant households in the selected backward districts of West Bengal.*

1.5 Hypotheses of the Study

I. *In-migration is significantly higher than out-migration in the relatively backward districts of West Bengal.*

II. *Not only prosperity but also distress factors have significantly explained the labour migration.*

III. *The remittances of the migrant play a significant role in poverty alleviation in the backward districts of West Bengal.*

1.6 Database

While the overall objective of the present study is to analyse the growth pattern and the variation in migration across regions in West Bengal as whole and across the districts of West Bengal, we try to develop a comparative analysis at district level and for this purpose we take resort to the secondary data. However, on account of the limitations of the secondary data and for the sake of an in-depth and detailed study we have tried to collect and use primary data to analyse our research questions. This section deals with the sources of the secondary data, methodology of collection of primary data and that of analysis of secondary and primary data.

1.6.1 Secondary Data and their Sources

The present study is based on both primary and secondary data for analysing the trends and pattern of migration of West Bengal. This study will depend on secondary information and data will be collected from the Registrar general of India in the various volumes of the *Census of India*. The *Census of India* provides data on migrants by Place of Birth (POB) and Place of Last Residence (POLR). Data on last residence along with details like duration of stay in the current residence and reason for migration provide useful insights for studying the migration dynamics of the population. The information on reasons for migration was only available from 1981 onwards. The analysis will be mostly based on the POLR using the data for the years 1981, 1991, 2001 and 2011(provisional). The other source of data on population mobility is the National Sample Survey Organisation (NSSO); Unit Level data of NSSO (64th Round) have also used to analyse the migration and remittances. Also data from Reserve Bank of India Bulletin, *Ministry of Overseas Indian Affairs (*Annual Reports), *Reserve Bank of India* data on remittances, *Reports of National Commission for Enterprises in the Unorganized Sector* (NCEUS) and *Statistical Abstract*, Government of West Bengal, and Rural Development Report of Government of India (2012-13 and 2013-14) etc. have also been used for specific purposes.

Limitations of Secondary Data

Indian census data on migration have several limitations to analyse the various aspects of migrations. Some of these limitations are outlined below:

District wise data were not available for separate reasons for migration, and, as such, no other study could be attempted separately for employment migration, educational migration or such type. District-level migration was not available according to duration of residence, and, as such, study of decadal migration or recent migration could not be made.

In the enumeration process of the census data, the reason for migration is noted and reported only for the main reasons, but not for the second reason for move; as a result, huge

proportion of migrants mainly females are reported being moved for familial reason (i.e., moved with family).No economic indicators of migrants' are available in the census data, like income, poverty, housing, education and displacement and so forth.

Another important limitation is that computerized version of census data on migration (*D – Series*) are available for the census year 1991 and 2001. But census year 2011 data on migration till now is not available.

Due to the above limitations of the census data present study has also used National Sample Survey Organisation's (NSSO) (2007-08) to analyse the migration behaviour and determinants of migration decision particularly the *out-migration and remittances* in West Bengal.

1.6.2 Primary Data and Sample Design

On account of limitations of the secondary data to serve the purpose of present study, a detailed primary survey has been made. Primary data have been collected (2013-14) from the households which are selected on the basis of multistage stratified random sampling. Relatively less developed districts of West Bengal have been purposely chosen for the present study due to significant growth of migrants in these districts, especially in case of male population, decentralised planning, implementation of land reforms programs and high population density. Districts of the state constitute the 1st stage sample unit while blocks become the 2nd stage and villages are the 3rd stage sample units. In the last stage (in stage four) sample households (20) have been selected from each of the sample villages and these constitute the ultimate units of sampling. The sample frame is shown in Table 1.1.

Districts of West Bengal have different agro-climatic and socio-economic characteristics. Sixteen districts of West Bengal are ranked on the basis of a number of socio-economic indicators. On the basis of this ranking, districts are segregated into two strata, namely, relatively developed and relatively less developed districts or backward districts. Four districts are drawn from relatively less developed districts based on the

random sampling without replacement. Paschim Medinipur, Murshidabad, Koch Bihar and Puruliya are chosen from the relatively less developed districts.

Table 1.1 Sample Frame

	1st Stage	2nd Satge	3rd Stage	4th Stage
	Districts (4)	**Blocks (8)**	**Villages (24)**	**Households(480)**
West Bengal (*Less Developed Districts*)	Paschim Medinipur	Mohanpur	Malpara	20 Households from each village
			Akpura	
			Remu	
		Dantan – I	Jamua	
			Benapura	
			Solakhia	
	Koch Bihar	Dinhata – I	Phulbari	
		Sitalkuchi	Rangamati	
	Murshidabad	Barwan	Harimati	
			Ramrampur	
			Katna	
			Kuli	
		Khargram	Asalpur	
			Serpur	
			Bhalkundi	
			Sahapara	
	Puruliya	Raghunathpur - I	Chinpina	
			Madhutati	
			Laratore	
			Unanshila	
		Barabazar	Fatepur	
			Sindri	
			Kudlung	
			Biskudra	

1.7 Methodology

We will use the simple estimation methods like the exponential growth rate formula and cross tabulation to find the out migration differentials from West Bengal over the decades 1981-1991, 1991-2001 and 2001-2011. We first calculate migration in terms of the

Net Migration Rate (NMR), In-migration Rate (IMR), Out-migration Rate (OMR) and Population Growth Rate (PGR) in the West Bengal.

i) ***Growth Estimation:*** For estimating the growth of migration, simple point to point growth rate per year is used. Census data and NSSO data are available in fixed time interval. ***Annual growth rate*** is calculated on the basis of the following formula:

$G = [\{(M_t - M_{t-1})/M_{t-1}\}/ t] *100$

Where, G = Growth rate, t = Time Period, M_t = Number of migrants in the year t, M_{t-1} = Number of migrants in the year $t_{t-1.}$

ii) ***Equality Test***: The equality of mean is tested by ***Fisher t-test*** and also the equality of variance is tested by ***F-statistics***.

(a) ***F-test***

Given two independent random samples of sizes n_1 and n_2 from two normal populations with unknown means, we may be required to test the hypothesis that the population variances are equal ($\delta_1^2=\delta_2^2$). For testing $H_0 : \delta_1/\delta_2 =1$, we use $\frac{s_1^2 / s_2^2}{¢_2^2 / ¢_1^2}$ is an F-statistic with n_1-1 and n_2-1 degrees of freedom. When the alternatives are $H_1 : \delta_1/\delta_2 >1$, H_0 is rejected if for given samples $F > F_{\alpha}$,n_1-1, n_2-1. If the alternatives are $H_1 : \delta_1/\delta_2 <1$, H_0 is rejected if for given samples $(1/F) > F_{\alpha}$,n_2-1, n_1-1. Lastly, when the alternatives are $H_1 : \delta_1/\delta_2 \neq 1$, H_0 is to be rejected if the samples in hand give either $(1/F) > F_{\alpha/2}$,n_2-1, n_1-1, or $F > F_{\alpha/2}$,n_1-1, n_2-1.

(b) ***t-test***

If $\sigma_1 \neq \sigma_2$ then to test H_0: $\mu_1 = \mu_2$ against H_1: $\mu_1 \neq \mu$. We use t-test.

Here t-statistic = $t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s^2_2}{n_2}}}$

Where s_1 and s_2 = sample standard deviation, $\bar{x}_1$, $\bar{x}_2$ = sample means and n_1 and n_2 = sample sizes. If the calculated value of t (t_0) is greater than the table value of t ($t_{n_1+n_2-2,\frac{\alpha}{2}}$), then the null hypothesis is rejected.

If$\sigma_1 = \sigma_2$, then t-statistic = $\frac{\bar{x}_1-\bar{x}_2}{S\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}$

Where S is combined variance i.e. $S = (n_1-1)s_1^2 + (n_2-1)s_2^2$

The equality between two means is tested by Fisher t-test. Let there be two sets of populations of which the variables are normally distributed with mean μ_1 and μ_2 and unknown standard deviations δ_1 and δ_2 respectively, m_1 and m_2 are the sample mean and s_1 and s_2 are sample standard deviations.

If the two unknown standard deviations are equal ($\delta_1 = \delta_2$) then to test the null hypothesis $H_0 : \mu_1 - \mu_2 = 0$, the appropriate test statistic is

$$t_{n_1+n_2-2} = \frac{m_1 - m_2}{S\left(\frac{1}{n_1}+\frac{1}{n_2}\right)^{\frac{1}{2}}}$$

where, $S = \frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2-2}$

For the alternative H_1: $\mu_1 - \mu_2 \neq 0$, H_0 is rejected for the given samples if $|t|$ (observed) > $t_{\sim/2}, n_1+n_2-2$ (table) and is accepted otherwise. On the other hand, if the alternative is H_1: $\mu_1 - \mu_2 > 0$, H_0 is rejected for the given samples if t (observed)> $t_{\sim}, n_1+n_2-2$ (table) and is accepted otherwise, and if the alternatives is H_1: $\mu_1 - \mu_2 < 0$, H_0 is rejected for the given samples if t (observed) < $-t_{\sim}, n_1+n_2-2$ (table) and is accepted otherwise.

When the assumption of homoscedasticity is untenable ($\delta_1 \neq \delta_2$), a test for the difference $\mu_1 - \mu_2$ is made by a simple approximation suggested by Cochran and Cox.[3] This is based on the results that the statistic

[3] Goon, Gupta and Dasgupta (1968), *Fundamental Statistics* (Vol-I), pp. 400-401.

$$\frac{(m_1 - m_2) - (\alpha_1 - \alpha_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

has upper α-point approximately the same as $\frac{(w_1 t_{\sim,n_1-1} + w_2 t_{\sim,n_2-1})}{w_1 + w_2}$ where, $t_{\sim,n_i-1}$ is upper α-point of the t-distribution with $(n_i - 1)$ d.f. and $w_i = \delta_i^2/n_i$ may be well approximated by $w_i = s_i^2/n_i$ (i=1,2), even for moderately large samples. Thus, e.g., if $H_0 : \mu_1 - \mu_2 = 0$ is to be tested against $H_1: \mu_1 - \mu_2 \neq 0$, then the observed value of $(m_1 - m_2)/\sqrt{(w_1 + w_2)}$ will be comparable with $\frac{(w_1 t_{\sim,n_1-1} + w_2 t_{\sim,n_2-1})}{w_1 + w_2}$ for acceptance or rejection of H_0. Note that if $n_1 = n_2$, then the critical value is just $t_{\sim,n_1-1}$.

iii) Correlation and Regression: To examine the factor relationship both correlation and regression analysis are used wherever it is necessary. On the basis of Pearsonian correlation coefficient a correlation matrix is constructed which is used to understand the interrelation among the variables. Regression analysis is the most important way to estimate the exact relationship between dependent variable and independent variable. Ordinary least square (OLS) method has been used in the present study. The parameters are estimated by OLS in the classical linear regression model (CLRM). The model is specified by the regression equation as follows :

$$Y_i = \beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} \ldots\ldots\ldots + \beta_2 X_{2i} + U_i$$

Where, Y is the dependent variable, X_i are the explanatory (regresses) variables, U is the stochastic disturbance term, and i is i-th observation. The estimation by OLS method in CLRM is based on certain assumption. ***Multicollinearity*** is essentially a sample phenomenon, arising out of the largely non-experimental data collected in most social sciences. The measures of the strength of Multicollinearity are made by: a) *High pair-wise*

correlation among regressors, b) *Eigenvalues and Conditional, and* c) *Tolerance and Variable Influence Factor.*

Pooled Regression

To analysis the determinants of male in-migration across districts we have also used the pooled regressions. It is specified as follows:

$$Y_{it} = \alpha + \beta X_{it} + U_{it}$$

In pooled regression equation, t = 2 (no. of years i.e., 1991 & 2001) and *i* = 16 (i.e., number of districts).

iv) FGT Methods for incidence, depth and severity measures of poverty

The status of poverty is measured by using the methodology of Foster, Greer and Therbecke (1984) as

$$P_{\propto} = \frac{1}{N}\sum_{i=1}^{q}\left(\frac{P_L - E_i}{P_L}\right)^{\propto} \quad ; \propto = 0, 1, and\ 2$$

Where, P_L is the poverty line, E_i is the expenditure of the *i-th* household, N is the total number of individuals in the population and α is a measure of senility such that

α = 0, P_0 implies the incidence of poverty

α = 1, P_1 (= PG) implies the depth of poverty

and, α = 2, P_2 (= SPG) implies the severity of poverty

v) Probit Model and Its Estimation for Determinants of Remittances Receipt (Households Level):

The migrant household remittance is received or not has been analysed analyzing with different household characteristics, socio economic factors and regional factors which determine the amount of remittance receipt. The Probit model is called for to analysis the remittances determining factors which are binary in nature.

Probit Model

The Probit model also represents a sigmoid curve. It corresponds to the CDF of a standard normal distribution. Here P_i is considered as standard normal CDF, which is evaluated as a linear function of explanatory variable(s). Thus, the Probit model is specified as (Bhaumik, 2015)

$$P_i = P(Y_i = 1) = F(\sim + \quad X_i)$$

Here $F(\sim + \quad X_i)$ is the CDF of the standard normal distribution so that

$$P_i = F(\sim + \quad X_i) = \int_{-\infty}^{\sim + \quad X_i} f(Z)dz$$

Where, Z is the standard normal variable and *f (*Z) is the density faction of $Z \sim N(0,1)$

As in Probit model, the log-likelihood function is

$$\ln L = \sum_{i=1}^{n_1} Y_i \ln P_i + \sum_{i=n_1+1}^{n} (1-Y_i)\ln(1-P_i)$$

$$= \sum_{i=1}^{n_1} Y_i \ln F(\sim + \quad X_i) + \sum_{i=n_1+1}^{n} (1-Y_i)\ln[1-F(\sim + \quad X_i)]$$

Maximizing *log L* with respect to ~ and solving, we obtain estimates of unknown parameters.

Computation of Marginal effect of Probit Model

For the Probit model, the marginal effect, i.e., the effect of change in *Xi* on *Pi* is computed as

$$\frac{dP_i}{dX_i} = \frac{dP_i}{dZ_i}.\frac{dZ_i}{dX_i} = f(Z).\hat{}_i = \left(\frac{1}{\sqrt{2®}}e^{\left(-\frac{Z^2}{2}\right)}\right).\hat{}_i$$

Where ® = 3.141

In this model, the value of $\frac{dP_i}{dZ_i}$ is evaluated at the mean value of the explanatory Variable(s).

vi) Heckman selection model (Two-Step)

Heckman selection model (two-step) is used here to analyze the effect of remittance income benefits along with other characteristics of the households on the status of poverty of the households.

Consider a model with two variables d_i and y_i which linearly depend on observable independent variables x_i and z_i respectively

$$d_i = z_i¥ + v_i$$

$$y_i = x_i \beta + \varepsilon_i$$

The error terms v_i and ε_i are independently (across observations) and jointly normally distributed with covariance $\rho\delta_{\varepsilon}$.

In the present case d_i indicates whether i-th household is poor or not and y_i indicates the poverty gap of the i-th household. We only observe an indicator d_i when the latent variable d_i^* (consumption expenditure) is less than the expenditure of poverty line (Rs. 544.43 for rural area and Rs. 669.75 for urban area per capita per month). Similarly, the value of the variable $y_i = y_i^*$ is only observed if the indicator is 1:

$$d_i = 1 \text{ if } d_i^* < \text{Rs. 544.43(rural)and 669.75(urban)}$$
$$= 0 \text{ otherwise}$$
$$y_i = y_i^* \text{ if } d_i = 1$$
$$\text{n.a. otherwise}$$

Heckman's (1979) two-step procedure involves the estimation of a standard probit and linear regression model. The two step procedure draws on the conditional ($d_i = 1$) mean

$$E(y_i / x_i, z_i) = E(y_i^* / d_i = 1, x_i, z_i) = x_i + °¢£[¤(z_i¥)/\cdot (z_i¥)] = x_i + °¢£ª(z_i¥)$$

of the fully observed y's.

Step 1: *is the consistent estimation of ¥ by ML using the full set of observation in the standard probit model*

$d_i^* = z_i¥ + v_i$ *(First Equation)*

di = 1 if i-th household is poor, 0 otherwise

We can use this and consistently estimate the Inverse Mills Ratio $\lambda_i = \phi(z_i\Phi)/\cdot(z_i\Phi)$ for all observations.

Step 2: *is the estimation of the regression equation with the Inverse Mills Ratio as an additional variable*

$y_i^* = x_i'\beta + \beta_\lambda\lambda_i + u_i$ *(Second Equation)*

for the subsample of full observations. Here y_i^* is the poverty gap (POVTG) of the i-th household. The OLS regression yields β, β_λ, δ_ε and thus the correlation $\rho = \beta_\lambda / \delta_\varepsilon$. There is often a practical problem of identification (almost multicollinearity) when the variables in both equations are the same, i.e. $x_i = z_i$ (Vella, 1998). The parameters β and β_λ are theoretically identified by the non-linearity of the Inverse Mills Ratio (λ). It is therefore strongly advised that at least one independent variable of the first equation is not included in the second equation. There is no selectivity bias if the coefficient of Inverse Mills Ratio (λ) is statistically not significant. Here the household's characteristics and other remittance determining factors of i-th household are denoted by x_i and z_i is the subset of x_i.

1.8 Plan of the Proposed Research Work

The rest of the work is divided in the five chapters. Chapter 2 discusses the volume, trend and pattern of labour migration in West Bengal as well as across districts of West Bengal. Chapter 3 examines the significant determinants of in-migration across districts of West Bengal and also examines the significant determinants of labour migration across households in West Bengal. Chapter 4 evaluates the determinants and impact of remittances and at the household level. The livelihood pattern of sample migrant households of relatively backward districts of West Bengal is analysed in Chapter 5. Chapter 6 summarises the main findings, makes concluding observations and points out some policy implication of the present study.