

# **The New Economic & Climatic Context and Changing Migration Pattern in India**

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## Chapter 1: Introduction

### **Background: The Inevitability of Urbanization and Migration**

The study is about new internal migration trends and their triggers in India; economic growth, in particular urban economic growth; inflation due to rising oil prices, food prices; changing climate conditions and its impact on farming patterns and disasters. The report of the study is presented in two parts. A literature review on the above issues to provide the conceptual framework of the study comprising secondary information from macroeconomic sources with respect to migration, economic growth, price rise and micro studies related to climate change, natural disasters etc. The second part uses findings from a primary survey based research conducted in New Delhi and Bangalore (metropolitan cities) and Faridabad and Dodballapur; satellite cities to Delhi and Bangalore respectively.

Urbanization is unstoppable and is generally associated with rural underdevelopment and migration. Sustained economic growth and higher urban wages are providing a new impetus to urbanization in India. According to Sanjoy Chakravorty (2009), Professor and Chair of the Department of Geography and Urban Studies at Temple University, USA, “People move for work and/or for higher income..... Urban work is more productive than rural work, and as a result, urban wages are higher. Whether one has a college degree or a primary school education, an equally skilled individual will almost certainly earn more in urban settings by working in a factory, office, shop – or even the informal or shadow economy – than in a village.”

Insidiously, as climate change and linked disasters begin to exacerbate the uncertainty of farming practice in rural India, diminishing outputs, they stoke up urban growth from rural to urban migration. Further, inflationary pressures from macro economic development (recent ones being the spike in oil prices and the global financial crisis of 2008), hike up the cost of farming, making it less sustaining and appealing to the rural people.

Since the last census in 2001, the 28 percent urban Indian population (285 million) has continued to increase rapidly and is projected to reach 40 percent by year 2030. By that time, says Sanjoy Chakravorty (2009), India’s total population will be around 1.5 billion, and around six hundred million, more than twice as much as in 2001, will be living in cities, mostly in or around the larger metropolitan cities where there is employment growth and/or wage growth.

Low supply of urban land for and/or affordable housing means many of the poorer migrants may end up in neighbouring cities, metro slums or in peri-urban settlements with far reaching implications for urban planning, development and mobility.

### **Migration: The Concept**

Migration has been broadly defined as a spatial shift or “*movement by humans from one locality to another, sometimes over long distances and in large groups*” (Wikipedia 2009). A more comprehensive definition by Mangalam (1968) adds temporal, social and process dimensions to the concept; “*Migration is a permanent moving away of a collectivity, called migrants from one geographical location to another preceded by decision making on the part of the migrants on the basis of a hierarchical ordered set of values and valued ends and resulting in changes in the interactional system of the migrants.*” UNESCO (2009) provides a more structured definition of migration crossing boundaries and communities; “*the crossing of the boundary of a political or*

administrative unit for a certain minimum period of time. It includes the movement of refugees, displaced persons, uprooted people as well as economic migrants. Internal migration refers to a move from one area (a province, district or municipality) to another within one country“.

It has been said that “one of the distinguishing characteristics of Homo sapiens is his (and her) tendency to migrate” (Du Toit and Safa 1975) and that the process of migration presents a series of simple dichotomies; voluntary versus forced, temporary versus permanent, legal versus illegal/ clandestine, and internal versus international. Migration is also viewed as an early form of globalization, a latent shaper of characteristics of people and places, labour markets and economic development (King 2008).

**Migration has been categorised by Bilborrow (1998) as:**

- ▶ *Permanent migration* that relates to movement by individuals and families on a permanent basis.
- ▶ *Temporary migration* that occurs at regular or irregular intervals; and encompasses *seasonal migration* as a special case, usually linked to agricultural seasons, but also to other seasonal activities such as construction work and tourism.
- ▶ *Circular migration* relates to movements for work or other reasons within a 30 day period that involves sleeping for a series of consecutive nights away from home and the movements repeated on a more or less regular basis in consecutive months without changing one’s perceived place of usual residence.
- ▶ *Commuting* is a daily travel to a place of work or study.

**Migration Trends in India**

Migration data in India is usually derived from the Census and employment-unemployment surveys conducted by the National Sample Survey Organisation.

Migration Streams	Lifetime Migrants			Inter-censal Migrants		
	Persons	Males	Females	Persons	Males	Females
<b>All Internal Migrants</b>						
<b>Rural To Rural</b>	18.40	-1.41	22.82	15.37	7.78	17.71
<b>Rural To Urban</b>	29.51	34.37	25.41	22.84	27.68	18.35
<b>Urban To Rural</b>	-3.56	0.00	-5.37	3.00	6.48	0.70
<b>Urban To Urban</b>	38.39	43.12	34.73	24.27	26.85	22.17
<b>Intra-district</b>						
<b>Rural To Rural</b>	17.42	-8.08	22.77	12.55	-0.99	16.34
<b>Rural To Urban</b>	9.83	7.93	11.10	1.25	-1.89	3.77
<b>Urban To Rural</b>	2.24	8.91	-0.86	8.24	12.69	5.55
<b>Urban To Urban</b>	66.51	83.37	54.97	33.41	37.44	30.45
<b>Inter-district</b>						

<b>Rural To Rural</b>	14.72	3.22	17.43	13.44	8.54	15.13
<b>Rural To Urban</b>	24.74	26.02	23.64	16.30	17.17	15.50
<b>Urban To Rural</b>	-14.37	-15.15	-13.97	-8.65	-7.87	-9.16
<b>Urban To Urban</b>	30.08	33.07	27.88	19.05	20.42	17.96
<b>Interstate</b>						
<b>Rural To Rural</b>	46.54	46.14	46.70	54.58	67.61	47.16
<b>Rural To Urban</b>	76.41	82.96	68.04	77.59	90.98	60.88
<b>Urban To Rural</b>	1.50	5.02	-0.99	12.02	17.19	7.35
<b>Urban To Urban</b>	28.05	28.83	27.33	24.92	28.37	21.76

*Source: Lusome and Bhagat (2006)*

Increasing pressure on agricultural land, poverty and low level of social and economic development, has been pushing the poor and unskilled in rural areas to urban areas. Migrants to urban areas, particularly to large cities, account for more than half the urban population, and an annual growth rate of 4-5% in many cities (Breman, 1985; Breman, 1996; Rao, 1994; Rogaly et al, 2001).

Besides migration, most large urban areas also have large floating populations, that do not fit into the conventional definition of migrants, but who contribute to a city's economy, utilize its resources and add to the infrastructure stress; creating an insurmountable gap between demand and supply. For example, Delhi's population in 2006 grew equally from natural increases (2.24 lakhs) and floating populations from neighbouring states (2.33 lakh); (Economic Survey of Delhi, 2007-08).

**Table 2 Number Of Migrants By Place Of Birth – India, 2001**

	<b>Category</b>	<b>Migration by Place of birth</b>	<b>Percentages</b>
A.	Total Population	1,028,610,328	
B.	Total Migrations	307,149,736	29.9
B.1	Migrants within the state of enumeration	258,641,103	84.2
B.11	Migrants from within the districts	181,799,637	70.3
B.12	Migrants from other districts of the state	76,841,466	29.7
B.2	Migrants from other states in India	42,341,703	13.8
B.3	Migrants from other countries	6,166,930	2.0

While migration is conventionally attributed to economic distress and shocks, it is increasingly becoming an accumulative option for poor and non-poor alike. Uneven development of different regions/states, interlocked markets for credit, output and labour; lack of market for traditional skills, availability of surplus labour within the household, cultural norms regarding sexual division of labour, as well as decisions related to children's education are factors that fuel distress migration. On the other hand, growth /'aspirational' migration (for education, better health care) popularly known as brain drain is also contributing to urbanization. The following data from Census of India 2001 indicates reasons for migrants in two urban areas, Delhi and Karnataka.

<b>Table 3 Reasons for Migration – India 2001</b>							
<b>Total migrants</b>	<b>Work employment</b>	<b>Business</b>	<b>Education</b>	<b>Marriage</b>	<b>Moved after birth</b>	<b>Moved with household</b>	<b>Others</b>
<b>Delhi</b>							
5,324,052	1,938,838	38,354	78,771	858,179	120,700	1,796,044	493,166
<b>Karnataka</b>							
2,074,471	489,784	55,488	75,225	597,406	144,424	383,295	328,849
<i>Source: Government of India, 2001, Table D1, Census of India.</i>							

Typically migration of ‘masses of the poor, landless, illiterate and unskilled agricultural labourers’ was a rural to metropolitan phenomenon with local small towns and small cities given the miss as these failed to offer minimum employment. This according to Mukherji (1993) has led to the acute urban involution, congestion, decay and proliferation of slums. More recent migration trends are pointing to brain drain to smaller towns, which are less crowded (in terms of opportunities for less skill intensive livelihoods and capacity to absorb the unskilled migrant), more affordable (cost of living and housing with basic minimum services) and friendlier for poor children, women, old. However, this movement is yet to be validated.

Recent phenomena in India also have serious implications for migration.

- ▶ High but inequitable rate of economic growth (9.3% in 2007 and 8.5% in 2008, Reserve Bank of India) consistent over the past few years, driving up aspirations and disposable incomes;
- ▶ There is phenomenal increase in availability of jobs in urban areas, which is illustrated by the table below which shows increase in manufacturing jobs:
- ▶ Agriculture crisis from low investments in the sector resulting is high indebtedness and economic distress (CEFS Report);
- ▶ Rising inflation, in particular rise in food prices that is especially hurting the poor; and
- ▶ Growth of small and medium towns as economic centres.
- ▶ The political economy of ‘neo-migration’ has not been researched.

<b>Table 4 Increase in Employment (1998-05)</b>		
<b>Major States</b>	<b>Manufacturing jobs added</b>	<b>% Growth</b>
Haryana	1,88,585	36.7
Karnataka	3,98,706	29.8
AP	5,28,808	27.7
Tamil Nadu	5,79,887	24.9
Punjab	1,34,341	21.4
West Bengal	2,27,522	7.9
Gujarat	37,004	2.6
UP	49,506	2.1
Maharashtra	25,485	1.1
Delhi	-3.43,849	-23.9

According to Deshingkar (2005), countries such as India are experiencing high levels of internal migration. Internal migration in India in terms of number has doubled from 1971 to 2001; from 159 million to 309 million persons (Lusome and Bhagat 2006). Census data is however, unable to capture different kinds of migration activities (Sheng 2002). Kundu’s (2003) analysis of NSSO and Census data found a falling rate of migration in India, only because this data did not incorporate all kinds of

migration, especially temporary migration. Floaters into Delhi alone approximate 5, 00,000 per day and are possibly missed in the math.

Some significant trends noted by Lusome and Bhagat (2006) relate to; changing composition of internal migrants over the years; significant increases in mobility during the 1990s; increases in all streams of internal migration during 1971-1981 and 1981-1991 (intra-district, inter-district, interstate and for males and females); decline during 1971-2001 in the proportion of rural-rural migration; and steady increases in urban-urban migrations. IMARDI<sup>1</sup> also found that number of women migrants was more than double the male migrants across 1970s till 2001 in both numbers and also as percentage of total populations, the main reason for high rates of women migration is marriage.

Of all types of migration, the 2001 Census IMARDII noted that rural to urban migration was most prominent, in particular for males as contrasted to rural-rural migration for females. Men and women migrated for different reasons. Analysing the factors responsible for migration, IMARDII reports the most prominent reason for men and women to migrate were employment and marriage respectively. Family migration was also a common reason for both men and women to migrate. Nearly two-thirds (63%) migrated for employment reasons from rural to urban areas as compared to just 48% in case of rural to rural migration (Singh 2009).

IMARDII found that mostly migrants moved to adjoining states or to corridors/states of economic growth. For example, 24% of out-migrants from Uttar Pradesh had moved to Haryana and Madhya Pradesh; 50% out-migrants from Bihar had moved to Jharkhand, West Bengal, Maharashtra and Uttar Pradesh; and 48% out-migrants from Kerala had moved to Tamil Nadu and Karnataka. Maharashtra, although not an adjoining state, was the most popular destination with 50% of all out-migrants from all states moving there. One third (30%) of the total out-migration was also to Gujarat and Haryana. This is corroborated by Chakrovorty (2009), when he finds a fairly clear pattern to urban growth in India; employment growth was concentrating in a few regions stretching along and around and between metropolitan centres in particular the western corridor, stretching from Ahmedabad, through Vadodra, Surat, Nashik, and Mumbai into Pune.

IMARDII also found a high correlation of migration with per capita incomes of states; migrating states having less per capita income than states migrated to. Deshingkar (2005) notes that during 1990-2000, migrants from backward states of Bihar, Uttar Pradesh, Orissa and Rajasthan, would migrate to more developed states of India which has benefited from the green revolution.

Deshingkar (2008) noted a high level of temporary migration, increase in rural-urban migration caused by new push and pull factors; and a higher propensity to migrate among certain castes; for example, Dayal and Karan (2003, cited in Deshingkar 2008) found that in Jharkhand while 15% of scheduled castes and scheduled tribes migrated, only 8% of upper castes and other backward classes did so. Further, Bhattacharya (2000, cited in Waddington and Wheeler 2003), found that states with higher proportion of scheduled tribes demonstrated higher rates of rural-rural migration attributed to their greater comfort levels and confidence in being within known areas/regions.

Further, Deshingkar (2008) found evidence of the increasing circular labour migration in India; where poor people from low productivity regions moved seasonally both within the state and outside for work and wages.

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<sup>1</sup> Internal Migration and Regional Disparities in India [online] available at: <http://community.eldis.org/.59b6a372/Internal%20Migration%20and%20Regional%20Disparities%20in%20India.pdf>

Disaster related migration is also becoming increasingly frequent. Borrowing from Wandschneider and Mishra's study in Orissa, Deshingkar (2005) notes that nearly 60,000 people from Bolangir district alone migrated following the 2001 drought. Besides drought, migration also results from 'failures in both urban and rural markets' such as; poor-mountain and forest economies, fall in agriculture produce prices and a burgeoning informal urban economy.

A new and emerging trend in migration according to Deshingkar (2005) is 'accumulative migration'; i.e. where migrants migrate less out of necessity and more due to aspirations and need for additional income and that people continue to migrate much after the distress reasons are no longer relevant. The future of migration trends in India is therefore as much framed by strong push factors as from stronger pull factors for India's poor emerging from economic growth and globalization.

A link between migration and climatic factors, such as temperature and precipitation, has been documented in several rural regions of developing countries. Rural households tend to rely heavily on climate-sensitive resources such as local water supplies and agricultural land; climate-sensitive activities such as arable farming and livestock husbandry; and natural resources such as fuel wood and wild herbs. Climate change reduces the availability of these local natural resources, limiting the livelihood options for rural households and act as a "push" factor" for migration to the cities: Land may become less fertile; lesser raw material may be available for traditional crafts, there may be less local fuel wood for cooking. So in the face of climate-related environmental change, rural residents are forced to migrate in search of work and create new migration patterns. Governments have undertaken little policy action to reduce climate-related migration, particularly in rural regions of less developed countries. Although some estimates of the health effects of climate change have been undertaken, there is still no clear understanding of the potential social effects.

#### **Migration, Poverty and Slum Development: An Inherent Contradiction**

Poverty has been conventionally defined using a consumption-deprivation concept and measured as the level of expenditure required to meet basic minimum food as well as non-food needs. The poverty line measure serves as a useful tool to classify populations into poor and non-poor but tend to miss vulnerable groups whose poverty accrues from lack of adequate basic services, housing and lack of land tenure, low levels of education and voiceless-ness or lack of influence (Tenth Five Year Plan).

While migration to cities has been understood as a household's response to poverty, the phenomena of slum growth in large cities, is inherently contradictory to this (Mukherji, 1981, 10-150; NIUA, 1988, pp.66-67). Most large cities report nearly half their population as living in slums (Census, 2001), unofficially many more are close to the half way mark; bulk of people who populate slums are migrants (NUHRU Report).

Urban poor in India can be categorized on a dynamic scale of needs and aspirations and multidimensional nature of poverty (ADB, 2001; Tenth Five Year Plan). Using the official income scale, poor households can be broadly classified as core, intermediate and transitional poor. Core poor households have incomes below half the official poverty line; intermediate poor households have incomes between the half and official poverty line, and transitional poor households are clustered above the poverty line because of their high risk to economic shocks, with likely incomes between the official poverty line and 1.5 times the poverty line. Each need group varies in terms of requirements for shelter, services, employment and consumption.

Slums in cities are environmentally unsustainable habitats without adequate provision of basic services that place people at great health risk (NSSO 55th Round, July 99-June 2000). Slums being on illegal land provide cheaper and more affordable housing to poor families. However, unlike village

economies, slum economies are cash based with higher living costs. Slum societies also lack social safety nets that are part of poor people's strategies to cope with distress (borrow, for child care) exacerbating household vulnerabilities.

The question whether migration can reduce poverty has not been clearly established, the verdict being mixed. For instance, Chakrapani and Vijaya Kumar's study of Palampur labour (1994) notes an increase in migrants' incomes. Haberfeld et al's (1999) found households sending migrants from Dungarpur to have higher income levels than those not sending migrants. On the other hand, Kothari's (2002) review of migration studies finds that migration can both reduce and perpetuate poverty.

Most migration studies measure income increases. Very few have actually examined the coping strategies of families left behind, in particular on women, children and elderly in distress migration conditions. Does this contribute to an increase in child labour? For e.g. income increases in rural West Bengal have been found to have resulted from a rise in children's incomes (HDR, 2004).

While the economic drivers of migration are well researched and continue to push current migration, there is less understanding of the growth/aspiration factors that are contributing to migration and large floating populations from smaller urban centres to larger cities. There is even lesser understanding of the contribution of migration to improving people's ability to move out of poverty.

### **Political Economy of Migration and Floating Populations**

Increasingly, there are indications that no amount of increases in urban growth rates can cope with migration pressures, unless the rural economy becomes self sustainable as envisioned by Gandhiji. On the other hand, urban development strategy has done little to address the complexities of migration, except for 'planned' infrastructure investment, that too in the larger cities. No clear policy has been outlined to address /arrest migration, and despite national investment bias for rural economies, rural-urban developmental inequities remain. Average incomes in India rose more rapidly in urban than in rural areas between 1993 and 2000, implying a widening of gaps in average incomes (Deaton and Dreze, 2002). The National Commission on Urbanization report of 1986 is the only policy statement with recommendation on managing migration and suggests creation of counter magnets and sustainable villages.

### **Theories of Migration**

The study of migration is not in general governed by one comprehensive grand theory but includes a range of concepts, models and approaches that are derived from different disciplines and interdisciplinary frameworks. Ravenstien's 'laws of migration' were established in the 19th century using the 1871 and 1881 census of U.K. He observed that:

- ▶ Most migrants moved only a short distance.
- ▶ There is a process of absorption, whereby people immediately surrounding a rapidly growing town move into it and the gaps they leave are filled by migrants from more distant areas, and so on until the attractive force [pull factors] is spent.
- ▶ There is a process of dispersion, which is the inverse of absorption.
- ▶ Each migration flow produces a compensating counter-flow.
- ▶ Long-distance migrants go to one of the great centres of commerce and industry.
- ▶ Natives of towns are less migratory than those from rural areas.
- ▶ Females are more migratory than males.

- ▶ Economic factors are the main cause of migration.

The Gravity model based on Newtonian physics tweaked Ravenstein's model to say, "*The amount of migration between two places is directly proportional to the populations of those places and inversely proportional to the distance between them.*" (see King 2008)

Reformulating Ravenstein's theory Everett Lee proposed a theory of push and pull factors; he maintained that factors such as distance, natural and political boundaries, having dependents can affect migration decisions. He argued that social factors such as age, gender, social class, caste; education level, social support/safety nets and networks etc determine and influence how individuals, households and communities react to push and pull factors.

These theories were further refined by Stouffer's theory of intervening opportunities. It stated; '*The number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities*'. Stouffer argued that migration was more dependent on opportunities than factors such as distance and population.

Economic theories of migration (economic) have largely emerged from models of development. According to the Lewis rural–urban migration rests on the demand and supply of labour. The Lewis model is based on two sectors, an underdeveloped, overpopulated rural subsistence sector marked by zero marginal productivity creating surplus labour in rural areas. The other sector is the modern urban sector having fixed wages, 30% higher than the rural sector. As the marginal productivity at the rural end is zero, labour is expected to move from the rural to the urban based on wage differentials (Todaro and Smith 2006).

The Todaro Model postulates that rural urban migration takes place due to urban –rural differences in expected incomes, perceived wages and benefits rather than actual earnings. Their argument holds stronger for developing countries as lack of information results in uninformed decisions and economies do not run on full employment levels. The probability of obtaining an urban job is directly related to the employment rate. "High rates of urban employment are therefore inevitable outcomes of the serious imbalance of economic opportunities between urban and rural areas in most under developed countries (Todaro and Smith 2006)

There is a vast body of literature on migration with interpretations from different disciplinary perspectives. Much of the earlier literature on migration has been preoccupied with 'development-induced' economic migration resulting from unequal development trajectories (McDowell and De Haan, 1997; Kothari, 2002) leading to one-way movement from poorer to richer areas through the 'push' created by poverty and a lack of work and the 'pull' created by better wages in the destination (Lee, 1966). In apparent contradiction to the logic of survival migration, the general finding of most studies of migration in non-disaster situations is that it is not the poorest who move but those with access to some resources, no matter how meagre these might appear, as migration always involves some costs of transportation and abandonment of many of the few possessions the poor might have. As the poorest of the poor cannot afford risk or movement, majority starve in situ (Skeldon, 2002).

The New Economics of Labour Migration framework according to Taylor (1991) addresses the multiplicity of factors which underlie migrating decisions and effects of migration on both origin and destination economies. Migration and remittances according to these theorists have both positive and negative effects on welfare of rural households and communities, depending on the type of household/community. The impacts also change with time: in the beginning, migration may deprive



households and rural economy of labour but in the long term, remittances may be invested back into improving productivity and creating assets and household incomes.

The Marxist interpretation (Breman, 1996; Olsen, 1996) focuses on how institutional structures/policies have perpetuated exploitation of migrants by capitalists and intermediaries; portraying migrants as no more than bonded labourers; powerless, poor and perpetually in debt (Olsen and Ramana Murthy, 2000). Marxist theories suggest that migrant exploitation is both direct and indirect; wages are much lower than the market rate, there is extraction of overtime and child labour, and terms of the contract resemble those in bonded labour relationships. In addition, intermediaries are found to use traditional caste-based and patriarchal modes of oppression to maintain exploitative labour relations. Marxist theorists thus accuse economists who have viewed migration as voluntary of being apolitical and naïve because of their refusal to recognize the oppression inherent in debt-bondage contracts (Olsen, 1996).

Structuralist and neoclassical economic theorists differ and conclude that migration offers labourers opportunity to exit traditional patron-client ties. For instance, Breman's research in South Gujarat (1993) shows how migration opened the way for labourers to break away from patron-client relationships and change from being semi-free to free. Rao's study of construction labourers from Mahbubnagar also suggests that migrants have more choice: 'more migrants have started to bypass contractors and go directly to the big cities'.

Recent research goes beyond structuralist and neoclassical economics interpretations by adopting a livelihoods and social exclusion perspective. The livelihoods approach departs from earlier narrow economics approaches to understand the importance of access to resources as well as the institutional and policy context within which migrants must function – caste discrimination, the labour market, and labour laws. The new thinking on migration also departs from Marxist analyses and gives more recognition to agency and how complex interactions between structure and agency shape migration outcomes (Kothari, 2002).

### **Factors in Migration**

Rural-urban migration had been viewed as beneficial in developing economies as it enabled a 'natural' movement of surplus labour from rural areas to urban areas. Increasingly as cities are getting overcrowded with surplus labour, lack of jobs and living space and housing constraints and urban squalor is high, migration is no longer being seen with benevolence.

Reasons behind migration are broadly divided into *push* and *pull* factors; and are the deciding principles for making a distinction between forced/distress based and voluntary/aspirational based migration.

Push factors are those which essentially force people/households/populations to move from their present spatial location to another. These factors range from natural disasters, economic collapse, wars/conflicts, political, social, religious oppression and ostracism. Pull factors are those which encourage people to move. These factors work from the receiving end and are inviting to those who are migrating. They range from perception of peace and safety at the new place, growing markets, a chance for better wages, better education and healthcare systems, social security, opportunity for social mobility, better standard of living as well as political, gender, sexual and religious freedom.

The dichotomy of push and pull factors is more a heuristic tool; in real situations factors behind migrating can be multiple, intertwined, a mix of aspiration and distress, and cannot be neatly categorized into push or pull. Citing examples of temporary labour migration in areas of West Bengal

and Bangladesh, the authors found that apart from multiple reasons, migrants also revealed shifting and changing reasons for migration (Rafique, Massey and Rogaly 2006). According to Kioe Sheng (2002), households may send a member to not just increase household income but to also diversify risks.

### **Migration Processes and Systems**

Migration choices and decisions are not made by individuals alone and are often shaped by the larger environment and more specifically families (Waddington and Wheeler 2003). According to Kothari (2002), these decisions are based on micro level factors at the individual and household level, meso level factors at the source and destination areas, and macro level factors such as national and international policies, economic crises (Kothari 2002, cited in Waddington and Wheeler 2003).

De Haan (2003) suggests that poorer households migrate as families and for longer durations, and usually because of survival needs and not aspirations. He further elaborates that the socio-economic group migrating varies by states and socio-economic levels in India. For example, in the case of migration by the very poor, female migration was higher.

Migration is often envisaged as a contractual system or a system of co-insurance, where the extended family bears the costs both economic and social for education, migration, loss of productive member, social support at home in return for remittances, savings, higher social status and diversification of livelihoods.

Migrating probability and profitability is determined by households using factors such as land ownership at source, livelihood diversification options, total number of productive household members, etc. Individual characteristics are also crucial in determining migrating probability such as better education and vocational skills that can be advantageous in labour markets.

Migration networks provide crucial support to all stakeholders, reducing the risks of migration and exacerbating its positive outcomes. Networks include interpersonal ties, memberships of associations and organizations such as trade unions, link migrants (relatives, friends, neighbours) settled in receiving areas, new migrants (when together, they help decrease costs of migration). Such networks help increase access to employment/jobs and provide channels for sending remittances (Portes and Rumbaut 1996, cited in Waddington and Wheeler 2003, Massey 1999, cited in Waddington and Wheeler 2003). De Haan (2003) elaborates how in the jute mills of Kolkata in West Bengal there are more migrant workers from Bihar and South-east Orissa rather than poorer migrants from south-west Orissa and other parts of Bengal, reflecting the importance of networks and linkages in migration patterns.

### **Effects of Migration**

The effect of migration, positive or negative, say Waddington and Wheeler (2003) is to some degree determined by the 'initial level of destitution of the household', which also determines whether migration was/is forced or voluntary (Waddington, Wheeler 2003). Those migrating as a last resort for survival are more vulnerable to poverty, shocks and stresses.

#### ***Effects of migration on source regions and receiving regions***

Migration has an effect on both the source and receiving regions and households. Lipton (1980, cited in Waddington and Wheeler 2003) found that when richer households migrate, they accrue more benefits from such shifting as they have greater access to education, are able to travel to farther areas for longer times and send remittances. Poorer households on the other hand do not have coping capacity and to manage the risk of absence of a productive household member and/or the

direct economic costs of migration. This in turn exacerbates inequality in the source and receiving areas.

Singh (2009) found that the Incidence of poverty in India was lower among: male migrants than non-migrants; for migrants from urban areas than migrants from rural areas; for migrants from larger, bigger metropolitan cities than migrants from small towns; and migrant males than females. These figures also correlate with educational levels of migrants; as education levels are better in case of urban-urban migrants than rural-urban migrants and non-migrants, the former have lower incidence of poverty (Singh 2009). Incidence of poverty among migrants also decreases with increase in length of stay.

The impact of migration on source and destination regions and households also varies. Deshingkar (2005) found migration in many parts of India to have increased urban poverty but reduced rural poverty through higher household income and remittances. Elderly are vulnerable and face the increasing risk of poverty due to migration with its effect on the breakdown of the traditional Indian customs which provide safety nets for the elderly (Mehta and Shah 2003, cited in Waddington and Wheeler 2003).

### **Migration and gender**

Women migrants constitute nearly 50 percent of total migration figures; De Haan (2000) argues that migration among women after marriage, even if they may only cater to domestic chores, must be counted in labour migration statistics. Census studies have however, been generally biased, seeing women's migration only as an effect of marriage, whereas actually a large majority among the lower income groups are working women. Studies by MSA Rao (1992) and others claim that life time migrants to Class 1 cities in India constitute two fifths of city populations, with female proportions here being higher than the males except from Uttar Pradesh and Bihar where women migration is lower than for Orissa and Arunachal Pradesh.

Pattern and trends in female migration are changing and a large population of women is moving to urban centers for reasons other than marriage and has improved the female-male ratio in the urban population.

### **Migration and Urbanisation**

As the focus of the present study is on rural to urban and urban to urban migration, this section of the literature review is aimed at examining literature around urbanization.

### **Urbanization, Population and Slum Growth**

Urbanization is deemed as a universal phenomenon characterized primarily by movements of people from small communities concerned chiefly or solely with agriculture to other communities generally larger, whose activities are primarily cantered in Government trade, manufacture or allied interests (Sills 2007). Migration and urbanization are closely linked. Urbanization is historically associated with industrialization as centres around industrial production units became activity hubs attracting people from surrounding agrarian areas to resettle in these economic growth centres.

Urban population grows from three different processes; natural population increases which is the highest contributor of population growth, followed by net migration in to urban areas and from a re-classification of rural areas into urban areas (Kioe Sheng, 2000)<sup>2</sup>. Studies by Kundu (2007) and Premi

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<sup>2</sup> "As the population of a city or town expands, it spills over the municipal boundaries into the surrounding rural areas and eventually these become part of the municipal areas, in addition, population growth and particularly economic development create the need for urban infrastructure and services in rural settlements. Increasingly, rural settlements across the region become urban settlements and assume an urban form of local

(2006), cited in Singh (2009) for India have concluded that natural increase accounted for 59.4% of total urban growth during 1991-2001; net rural-urban migration, 21%; and expansion of urban areas and merging towns, 13% of total urban growth.

India among the Asia-Pacific regions is categorized as medium level of urbanization (25-75%) with a medium to high urban growth rate (2-4%). India's urban growth pattern has been dynamic. Post independence it experienced a relatively high urban spurt catalyzed by various political and administrative conditions; partition, formalization of urban centres, new industrial growth hubs, etc. Following the initial spurt, it settled down to a slow urban growth. The pace has however picked up and India has been urbanizing rapidly over the last 2 decades and its urban population is growing faster than its rural population. Still less than 28 percent of the total population in 2001 was living in urban areas. Even though just one-third of India is urban, the rate of urban growth, especially in big cities has been unbelievably high; one-fifth of which is coming from migration. In 2001, sixty-eight million urban people lived in the eight metropolitan cities (Mumbai, Delhi, Kolkata, Chennai, Bangalore, Hyderabad, Ahmedabad, Pune) and another forty million lived in the remaining twenty-seven cities that had at least a million people. According to Chakrovorty (2009), Mumbai has gone from a population of eight million in 1981, to 12 million in 1991, to 18 million in 2001 - a 50 percent growth rate per decade.

**Table 5 Emerging Re-Classification of Urban Areas and Growth of Metros and Large Cities (Estimates)**

S.No	Classifications of Urban Areas	2001 (Actual)			2051 (Projected)		
		No. of Urban areas	Population (in millions)	Percentage of Urban Population	No. of Urban areas	Population (in millions)	Percentage of Urban Population
1.	Mega cities (>10m)	3	42.38	14.74	15	180	22.10
2.	Other metros (1 to 10 m as UA's with M.C. + other LSG's)	32	65.48	22.96	85	218	26.60
3.	Large Cities (0.3 to 1m as UA's with M.C. + Other LSG's)	88	38.64	13.54	300	150	18.25
4.	Small Cities (0.1 to 0.3m as UA's with M.C./M.Coun. + other LSG's)	308	48.20	16.89	600	120	14.60
5.	Large Towns (20,000 to 0.1m as UA's with M.Coun. + other LSG's)	1515	63.17	22.24	2,000	100	12.15
6.	Small Towns (< 20,000 as M.B./NPs)	2,023	27.48	9.63	3,500	52	6.30

government. It makes urbanization a partly administrative rather than a purely demographic process (Sheng: 141, 2002)."

Total	3,969	285.35	100.00	6,500	820	100.00
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Source : Riberio, E.F. N. , Khosla, R. *Census of India and projections presented in Urban Spaces*

Note: U.A. = Urban Agglomeration, MPC = Metropolitan Planning Committee, DPC = District Planning Committee, MC = Municipal Corporation, M.Coun. = Municipal Council, MB = Municipal Board, NP = Nagar Panchayat.

Given this pace of urbanization and low municipal capacity (fiscal and for implementation), it is unsurprising that urban areas are getting overcrowded, congested, unhygienic, and with poor housing in poor localities with no or limited access to civic and basic amenities. Unplanned and unbalanced urbanization has been responsible for the deplorable quality of live for nearly 40 percent of the population that live in slums and squatter settlements. Slums according to Nabeel Hamdi and Goethert (1997) are *“evidence of cities that are working....but....also problematic, because ..... these same settlements are ‘fragile’ organizationally, and often suffer acute poverty.....”*

According to the Planning Commission, poverty in India is on the decline and this is attributed to the fast growing national economy (Table 6). However, data from Census Slum surveys suggests that numbers living in slums are actually on the rise. A study by Chakrabarti (2001) the concluded that slum areas were growing four and half times faster than non-slum populations. Mumbai reported 54.7% of its total population (16.37 million) in slums (2001) an increase of nearly 320% from 1978 (2.8 million: 1978) and over 200% from 1983 (4.3 million in 1983) (Mumbai Pages 2007) despite a decline in the poverty levels. Other cities such as Delhi have a reported slum population of 18.7%, Meerut, 44%, and Faridabad 46% (Singh 2009). In real numbers, Maharashtra has 11.2 million people living in slums, Andhra Pradesh has 5.2 million, Uttar Pradesh has 4.4 million, and in West Bengal 4.1 million.

**Table 6 Estimates Of Incidence Of Poverty In India**

Year	Poverty ratio (%)			Number of poor (million)		
	Rural	Urban	Combined	Rural	Urban	Combined
1973-74	56.4	49.0	54.9	261.3	60.0	321.3
1977-78	53.1	45.2	51.3	264.3	64.6	328.9
1983	45.7	40.8	44.5	252.0	70.9	322.9
1987-88	39.1	38.2	38.9	231.9	75.2	307.1
1993-94	37.3	32.4	36.0	244.0	76.3	320.3
1999-00	27.1	23.6	26.1	193.2	67.1	260.3
2007 *	21.1	15.1	19.3	170.5	49.6	220.1

\*Poverty projection for 2007

Source: Tenth Five-Year Plan, Vol.1, Planning Commission

### **The Rural Urban Migration Link**

According to Gugler (1988) around two fifths of the total urban growth in the third world is on account of rural to urban migration. In India, one fifth of urban growth is accounted for by rural to urban migration; and this rate has been slow and stable for some time. However, United Nations projection of Indian population suggests nearly 40 percent of India’s population by 2030 to be in urban areas.

Reardon (1999, cited in Sheng 2002) has identified three stages of rural-urban linkages. In the first stage, farming employs majority of the rural population, the non farm work that exists tends to be

linked to agriculture and is limited to peripheral areas. Units are small scale and home based and processing and distribution is done by small enterprises. In the second stage, there is diversification in kinds of employment, apart from agriculture there are avenues in tourism, mining, services etc. Rural – urban linkages develop and there is movement between the rural and the urban. In the third stage urban –rural linkages strengthen and become established.

In India migration of work force from rural areas and small towns to mega cities like Delhi and Mumbai has been very high due the following reasons: insufficiency or lack of land for cultivation, low land fertility, absence of adequate irrigational facilities, frequent droughts because of climatic changes, lack of diverse employment opportunities, caste/ class feuds, untouchability, etc. In addition, unemployment, underemployment, lack of basic services like clean water, and access to health and education add to the push factors as people migrate from small towns to bigger cities and urban centres in search for a better quality of life.

### **Economic Growth in India**

The Indian economy has grown at an average 8.5% over the past five years. During the fiscal year 2006-2007, the growth peaked at 9.9%. This growth has however come largely from growth in the non-farm sector which comprises of 92% of the countries present Gross Domestic Product (Thakurta 2008) i.e. manufacturing industry and the services sector.

**Table 7 Quarterly Rates of Growth for overall GDP along with that for the Farm, Industrial and Service Sectors**

Fiscal Year	Quarter	Overall GDP	Agriculture & allied activities	Aggregate Non Farm	Non-Farm GDP		
					Industry		Services
					Total Industry	Mfg.	
<b>2002/03</b>	Q1	5.2%	-0.6%	7.1%	5.3%	4.3%	8.1%
	Q2	5.8%	-4.0%	8.1%	7.3%	7.0%	8.6%
	Q3	1.6%	-12.5%	7.3%	6.9%	7.1%	7.5%
	Q4	3.8%	-8.0%	7.3%	6.8%	7.6%	7.6%
<b>2003/04</b>	Q1	5.5%	0.1%	7.1%	5.8%	6.1%	7.8%
	Q2	8.8%	7.2%	9.2%	6.3%	6.9%	10.7%
	Q3	11.0%	18.2%	8.6%	6.3%	7.0%	9.9%
	Q4	8.5%	8.2%	8.5%	8.3%	7.9%	8.6%
<b>2004/05</b>	Q1	8.1%	1.1%	10.1%	8.2%	6.7%	11.1%
	Q2	6.9%	-2.1%	8.9%	8.4%	8.4%	9.2%
	Q3	5.5%	-6.5%	9.9%	9.8%	9.2%	9.9%
	Q4	8.9%	0.4%	11.2%	8.6%	8.2%	12.4%
<b>2005/06</b>	Q1	8.4%	4.0%	9.6%	10.5%	10.7%	9.2%
	Q2	8.0%	4.0%	8.8%	7.7%	8.1%	9.3%
	Q3	9.3%	8.7%	9.5%	9.6%	8.2%	9.5%
	Q4	10.0%	6.2%	10.9%	10.4%	9.4%	11.1%
<b>2006/07</b>	Q1	9.6%	2.8%	11.3%	10.6%	12.3%	11.7%

	Q2	10.2%	2.9%	11.6%	11.3%	12.7%	11.8%
	Q3	8.7%	1.6%	10.9%	10.6%	11.8%	11.0%
	Q4	9.1%	3.8%	10.3%	11.2%	12.4%	9.9%
<b>2007/08</b>	Q1	9.3%	3.8%	10.6%	10.6%	11.9%	10.6%
	Q2	8.9%	3.6%	9.8%	9.1%	8.6%	10.2%

*Source: Economic Advisory Council to the Prime Minister 2008*

Although the rate of growth in the farm sector grew in 2005-2006, it slowed down soon after and by 2006-2007 stood at just 3.5% per annum (Economic Advisory Council to the Prime Minister, 2008). The slow growth in agriculture (barely 2.5% over the last five years and even lower if one compares the rate of growth over the past decade and a half) has reduced the per capita output of cereals (wheat and rice) to levels that were prevailing in the 1970s. Many reasons are responsible for current crisis in Indian agriculture; low rise in farm productivity, un-remunerative prices for cultivators, poor food storage facilities resulting in high levels of wastage, over 60% un irrigated cropping area, etc. Since farming provides livelihoods to around 60% of India's 1.1 billion people, it has serious implications for migration (Thakurata 2008).

On the other hand export linked industrialization has mushroomed, creating employment opportunities for men and women in textiles, garment industries, appliance making and electronics. Improved transport and communication networks have made migration simpler, while financial services have made transfer of remittances and savings easier (Sheng 2002).

States	1980-1990	1990-2004	1980-2004
Andhra Pradesh	4.81	5.33	5.10
Assam	3.91	3.00	3.40
Bihar	5.20	4.20	4.60
Gujarat	5.71	8.11	7.10
Haryana	6.68	6.63	6.65
Himachal Pradesh	6.10	6.44	6.30
Karnataka	6.10	6.38	6.30
Kerala	4.50	5.69	5.20
Madhya Pradesh	5.18	4.74	4.90
Maharashtra	5.98	5.92	5.95
Orissa	5.85	3.94	4.70
Punjab	5.15	4.14	4.60
Rajasthan	7.17	5.68	6.30
Tamil Nadu	6.35	5.70	5.97
Uttar Pradesh	5.88	3.76	4.64
West Bengal	5.20	7.12	6.32
All-India	5.60	5.90	5.80

*Source: Kohli, 2006*

In terms of state specific growth Gujarat achieved the highest rate of economic growth at 7.1% during 1980 -2004, followed by Haryana. On the other hand Assam recorded lowest economic growth during the period at 3.4% followed by Bihar and Orrissa at 4.6% (Table 8). During the 1990s

till 2004, Gujarat and West Bengal witnessed high and accelerating state per capita growth rates, while Rajasthan, Bihar, U.P. and Orissa had low baseline growth rates and decelerated further during the period (Table 9). At the same time Rajasthan, Bihar, U.P. and Orissa were also reported to have an unfavourable and degrading investment climate (Table 10). Labour unrest was reported to decrease in W. Bengal, Kerala, U.P. Orissa and Rajasthan, but this decrease decelerated in the latter three states during the period 1990-2004. Bihar and Punjab on the other hand experienced the highest magnitude of labour unrest (Table 11).

Gujarat, Orissa, Rajasthan and U.P witnessed high growth rates in the 1980s, but the rate of growth rate declined in the latter three during 1990-2004. W. Bengal, Kerala, Punjab and Bihar started with low growth rates in the 1980s, while growth rate increased in W.Bengal and Kerala it decreased in the later two. Quality of infrastructure was good in Gujarat, Kerala and Punjab during 1990-2004, however Rajasthan, Bihar, UP and Orissa reported poor and decelerating quality of infrastructure.

<b>Table 9 Economic Growth in Rich and Poor states</b>			
		Post reform Growth Rate (1990-2004)	
		Accelerated	Decelerated
State Per Capita Income	High	Gujarat, West Bengal	Punjab
	Low	Kerala	Rajasthan, Bihar, Orissa, U.P

<b>Table 10 Economic Growth in States with Varying Investment Climate</b>			
		Post reform Growth Rate (1990-2004)	
		Accelerated	Decelerated
Investment Climate	Favourable	Gujarat	Punjab
	Not favourable	West Bengal, Kerala	Rajasthan, Bihar, Orissa, U.P

<b>Table 11 Economic Growth and Labour Unrest in the States</b>			
		Post reform Growth Rate (1990-2004)	
		Accelerated	Decelerated
Labour Unrest	Decreased	West Bengal, Kerala	U.P, Orissa, Rajasthan
	Unchanged or Increased	Gujarat	Bihar, Punjab

<b>Table 12 Economic Growth in the 1980s and in the Post-reform Period</b>			
		Post reform Growth Rate (1990-2004)	
		Accelerated	Decelerated
Growth Rate in the 1980s	High	Gujarat	Orissa, Rajasthan, U.P
	Low	West Bengal, Kerala	Punjab, Bihar

<b>Table 13 Economic Growth in States with Varying Infrastructure</b>			
		Post reform Growth Rate (1990-2004)	
		Accelerated	Decelerated



Quality of Infrastructure	Good	Gujarat, Kerala	Punjab
	Poor	West Bengal	Rajasthan, Bihar, U.P, Orissa

Source: Kohli (2006)

### **Implications of Economic Growth for Migration**

The shift in its growth rate during 2003-07 in the Indian economy can largely be attributed to the substantial economic reforms introduced in the country in the aftermath of the 1991 crisis (Panagariya, 2008). The sectoral composition of economic growth during this period indicates that while the growth of the primary sector continues to be influenced by the vagaries of nature, current growth is led by the service and the manufacturing sectors. Growing investments in these sectors have significantly influenced the requirements of the factors of production and a redistribution of resource use patterns. Large-scale location of these growing investments in the urban centres has lured many to migrate to the urban centres to get over their distress or pursue their aspirations. The UNDP, 2009 report observes that such a movement of rural to urban centres is natural and needs to be encouraged as it aids in economic integration and poverty reduction.

Lewis (1954) had observed that agriculture was traditionally characterized by a fixed supply of land, limited capital but a large supply of labour. Manufacturing on the other hand and service sectors were modern sectors with large labour absorptive capability. He argued that migration played an important role in the transfer of surplus labour from the traditional agriculture sector to the modern sectors and in the acceleration of economic development process.

Modernization did not limit transfer of human resources from the agriculture sector alone but extended to other sectors too. As a result the urbanization process was not limited to migration from economic distress or poverty but also by aspiration for making use of the growing economic opportunities. The growth of the modern sectors provided scope for absorption of better skills and knowledge thus creates opportunities for educated labour force to migrate from rural/ urban centres to fulfil their aspirations to earn better incomes, better employment opportunities or even acquire better skills. Thus the modernization process resulting in enhanced economic growth provided opportunities for both unskilled and economically downtrodden to eke out their living to overcome their economic distress and enhance the scope for skilled and educated workforce to pursue their aspirations to improve their standard of living.

Study group on migrant labour (National Commission on Rural Labour,1991) cites two reasons for rural labour migration- first migration for 'survival' and migration for 'subsistence'. The first one according to the study group denotes extreme economic and often social hardships faced by the labourers in rural India and migration becomes an outlet as a part of their survival. These migrants are typically landless or land poor unskilled and illiterate. Over 50 percent of these migrants also it is argued, belong to the depressed or officially referred to as 'Scheduled Castes and tribes and most of them would be from the economically backward regions of the country characterized by inadequate irrigation or other water systems in agriculture, low employment and low productivity in both dry and wet region. (NCRL, 1991, k-7) The present study's definition of 'Distress' is the same as that of the 'survival' category as defined by the NCRL.

The second reason 'subsistence' kind of migration, the NCRL argues denotes better situations for rural labourers. Their survival may be worked out with in the matrix of the local socio-economic-ecological environment, but they are vulnerable in terms of seasonal unemployment and poverty. Hence it is argued that their migration is for shorter periods than the former group and to near regions. The present study, however, defines 'aspirant' migrants as the ones with some endowments

such as skills, better education levels and the ones possessing assets migrating to the urban centres to pursue their aspirations to acquire better jobs or earn better incomes. They migrate from one urban centre to another in pursuit of their aspirations. Hence, the study attempts to footprint the migration pattern of the migrants. This kind of categorization in the study of migration trends and pattern is very important, as it helps in the framing of appropriate urban development policy pronouncements.

In the new economic context migration happens from 'distress' and 'aspiration'. Understanding this is critical in order to derive the kind of implications such migration has on the sectoral development, the urban pressures they create on the infrastructure and the urban development strategies to be adopted by the government. However, the fact that migration of the 'distress' category is also guided by their 'aspiration' to overcome their economic distress and hence the ultimate factor guiding migration of all the migrants would be their aspiration to get out of their current constraint.

### **Global Economic Recession**

In 2009, an economic crisis which began in developed countries engulfed most nations, including hitting developing economies like India through 'capital reversals, rising borrowing costs, collapsing world trade and commodity prices, and subsidizing remittance flows (United Nations 2009).'

The Economic Advisory Council to the Prime Minister (2008) advocated that slower rates of growth in the developed countries were going to influence the economies of the developing countries from shrinking markets, negatively affecting production in importing countries thus leading to slower economic growth.

Some of the most potent threats to growing economies from the global financial meltdown envisaged were; food price volatility, oil and gas price rise, asset price collapse. The World Economic Situation and Prospects report (United Nations 2009) maintained that the global economic crisis will also lead to unemployment, underemployment and working poverty in countries such as India, with reduction in export demand. Although, the report iterated that even though demand for export has gone down, the persistence in domestic consumption and government expenditure was cushioning the country.

Ratha and Mohapatra (2009) are predicting a fall in international north-south remittances by 5-8% to developing countries. In case of India, the south-south remittances are also going to decline such as from the Gulf countries. In addition, the global economic crisis is resulting in an increase in international return migration along with changes in patterns of internal migration.

### **Inflation and Rising Food Prices**

The agrarian crisis has been chiefly responsible for the rise in food prices; these have climbed very sharply in the last couple of years and have contributed significantly to the high inflation rate. The low purchasing power of India's poor exacerbates the situation, and even a small increase in food prices contributes to a sharp fall in real incomes (Wheat prices in India have doubled between 2005 and 2007 (Thakurta 2008). The prices of oil, raw materials, and grains according to Ghauri (2009) will fall from current levels but will settle at 50% higher rates in the coming decade in comparison to earlier years.

Part of the increase in food prices according to the Economic Council (2009), can be attributed to the changing weather (weather unpredictability, global warming), reduction in farm acreage, low rise in productivity, poor storage, increase in bio-fuel prices (Economic Advisory Council to the Prime Minister 2008, Thakurta 2008). Other reasons include the increase in the use of bio fuels, population growth, improved living standards in developing economies, market prices and speculation, high fuel

and fertilizer costs, export quotas for maintaining prices within national markets; etc. (Ghauri 2009). Natsios and Doley (2009) and Ghauri (2009) further attribute the food price rise to the growth of the middle class in developing economies of China and India which is demanding a food basket with higher meat and poultry which requires higher amounts of grains to supply. According to Ghauri (2009:52), “higher food prices are of great and more immediate concern than higher fuel prices in respect to their impact, implications and consequences in terms of income, distribution, inflation and poverty”.

### **The Economics of Migration**

Migration studies have indicated that that the US recession, economic melt-down, inflation resulting in rising food prices etc. are some of the causes for people to migrate. United Nations (2009) has estimated that the recession has pushed 90 million people world wide into extreme poverty.

Some of the affected populations according to SEWA, an NGO working with women in the informal sector of the diamond polishing industry, construction, export manufacturing and export commodities sectors in Gujarat, have had to move/ migrate to other areas, states, sectors as existing livelihood options begin to disappear (Thakurta 2008). It is too early for any impact studies; however anecdotal evidence suggests that many poor in textile industries in cities like Panipat have lost jobs as demand has gone down.

### **Climatic Change in India**

Climate change from global warming is posing a real threat to human development. Average global temperatures are said to have risen by about 1 degree Fahrenheit and are exacerbating problems of the poor that already exist; unpredictable and erratic monsoon rains followed by crop failures, droughts or floods. Weather-related calamities can stifle economic growth and push more and more people to cities.

Rural households rely heavily on climate-sensitive resources such as local water supplies and agricultural land; climate-sensitive activities such as arable farming and livestock husbandry; and natural resources such as fuel wood and wild herbs (Hamdi and Goethert 1997). Climate change reduces the availability of these local natural resources, limiting the potential for rural households that depend on natural resources for consumption or trade. Land could become less fertile; fewer reeds may be available for basket making; or there could be less local fuel wood for cooking. Water, power and food shortages, lower rural demand for goods/services; higher food prices with increased risk of malnutrition are other associated problems (Hunter 2007).

Changes in climate have negative effects on the well being of people. Climate change is predicted to deepen poverty both directly and indirectly. The direct impacts include loss of life, livelihoods, assets, infrastructure, etc., from climatic linked disasters/events. Farmers are dependent on the four-month long monsoon which provides 80% of the year's total rainfall. As it gets scantier and/or irregular there is farmers are less sure of the agriculture outputs. The indirect effect will be on economic growth. With continuing climate change variation, farm labour would need to shift to non-farm sectors with little skills to cope. Late entry into the sector will increase inequality and increase poverty (Thakurta 2008).

Economic research shows that climate change particularly affects developing economies, sectors and geographies that are more vulnerable such as agriculture, coastal areas, energy, forestry, tourism, and water. Because developing countries in general have a larger share of rural economies (agriculture and forestry) they are also more severely affected (Mendelsohn, Dinar and Williams 2006) with damages to people's quality of life. Economists have also concluded that climate change costs to businesses and communities will come from increases in energy costs, storm /flood

damages, reduced food production, increased public health costs, impacts from doing strenuous labour; increased respiratory disease; etc (Niemi 2009). Besides real costs the set of non-market impacts involve health effects from increases in vector-borne diseases. In turn, these changes will potentially affect productivity unless reduced by a mixture of prevention and relief programs.

People in India, especially the poorest, are very vulnerable to climate change impacts, mainly because they depend on natural resources for survival; food, shelter and incomes. More than 60 percent work in the agriculture and allied sectors (Thakurta 2008), some others live along coastal regions making a living through local tourism or fishing. Rural communities are beginning to experience the impacts of climate change with few resources to cope. The crisis in agriculture is evident in the growing incidence of farmers taking their own lives or migrating to cities and towns in search of better prospects or opportunities. At least 10,000 farmers are known to be committing suicide annually over the last decade because of their inability of repay loans taken at usurious rates of interest from local moneylenders (Patel 2008). As climatic variations multiply the vulnerability of poor people by adversely affecting their health and livelihoods, they jeopardize growth opportunities vital for poverty reduction.

### **Disasters and Climate Change**

Climate change has also been responsible for increasing disasters. The last decade has seen India struggle with more natural disasters than usual. India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, desertification, cyclones, earthquakes and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% total area is prone to cyclones, and 68% is susceptible to drought. Recent disasters have included the super cyclone in Orissa in 1999, the Bhuj earthquake in Gujarat in 2001, Tsunami in 2004, Kosi flood in Bihar in 2008 etc. Many of these disasters have driven people to migrate (Sharma and Khan 2000).

In the decade 1990-2000, an average 3000 people lost their lives and 30 million more were affected by disasters every year. Floods have annually destroyed lives, livestock and assets worth millions. The loss in terms of private, community and public assets has been astronomical. Of all affected by shifts in climate, the poorest regions suffer most because they lack safety nets and are least able to cope with the new conditions. Tables below provide evidence of disasters from climate change and their impact on people and cities.

**Table 14 Human Lives Lost Due to Various Disasters in India**

<b>Year</b>	<b>Floods</b>	<b>Cyclones Floods</b>	<b>/</b>	<b>Hailstorm</b>	<b>Earthquakes</b>	<b>Total</b>
1990-91	1320	979	-	-	-	2299
1991-92	1185	304	-	-	768	2257
1992-93	1193	497	-	-	-	1690
1993-94	1690	318	-	-	7938	9946
1994-95	2038	247	59	-	-	2344
1995-96	2072	361	31	-	-	2464
1996-97	2069	1719	40	-	-	3828
1997-98	1560	216	247	39	-	2062
1998-99	2567	1292	-	-	106	3965
<b>TOTAL</b>	<b>15694</b>	<b>5933</b>	<b>377</b>	<b>8851</b>	<b>30855</b>	

*Source: Sharma and Khan (2000)*

<b>Table 15 Some likely impacts of climate change</b>		
<b>Change</b>	<b>Impact on Urban Areas</b>	<b>Impact on Health and Household Coping Ability</b>
Warm Spells and heat waves; increased frequency in most land areas	Heat islands with temperature upto 7°C(44.6°F)Higher; worst incidence of air pollution	Increased risk of heart-related illness and death; more vector-borne diseases; impacts on those doing strenuous labour, increased respiratory diseases; food shortage from impact of agriculture
Heavy Precipitation events: Increased frequency in most areas. Increased intense tropical cyclone activities(including Hurricanes and Typhoons)	Increased risk of floods and landslides; disruption to livelihood and city economies; damage to homes, possessions, businesses, transport and infrastructure; loss of income and assets; often large displacement of population, with risks to assets and social networks.	Deaths; injuries; increased food and water-related diseases; more malaria from standing water; decreased mobility with implications for livelihoods; dislocations; food shortages; displacement and associate risks to mental health
Increased area affected by drought	Water shortages; distress migration into urban centres; hydroelectric constraints; lower rural demand for goods/services; higher food prices	Increased shortages of food and water; increased malnutrition and food and water-borne diseases; increased risk of wildfires and associated respiratory problems
Increased incidence of extreme high sea level	Loss of property and enterprises; damage to tourism; damage to buildings from rising water table	Coastal flooding increased risk of death and injuries; loss of livelihoods; health problems from salinated water

*Source: Cities Alliance 2009*

### **Migration and Climate Change**

In the face of climate-related environmental change, such as decline in productive agricultural land, rural residents are forced to migrate in search of work and to remit portions of their incomes back home to enable their families in the home communities to buy goods previously produced or harvested locally (Hunter 2007).

In 1991, just a small percentage, 1%, migrants had reported natural calamities as the reason behind migration (Singh 2009). Climatic migrants are however, expected to become the major driving force in migration, exceeding economic migrants, in the coming decade. The International Organization for Migration expects nearly 50 million environmental refugees by 2010 and 200 million by 2050 (Brown 2008). This link between climatic factors and migration has been documented in several developing countries. In Burkina Faso, for example, residents of dry, rural areas were found to migrate to rural regions with greater rainfalls as a response to recurring droughts (Hunter 2007).

Deciding to migrate is not an easy decision for families and prior to migration, they try and exhaust all possible options. Migration, including in response to weather changes, happens mostly in resource-dependent families and after families have completely used up their families' livelihood

options. For example, in Ethiopia, villagers used every survival strategy in their knowledge to avoid migrating; such as using food reserves, seeking local non-farm employment, selling livestock, borrowing food, or selling household and farm equipment. However, once all options are used up, there is little choice for people but to migrate. Because migration represents a tremendous force of social change, the potential for climate change to increase migration deserves careful consideration and policy attention.

Climate linked disasters displace people in large numbers. Besides dealing with the shock, migration puts at risk unsecured/unprotected assets that are left in home areas and destroys the social networks that provide safety nets. Deaths and injuries from disasters affect the family's ability to earn a living or be mobile and with significant mental health consequences. Almost all disasters have a disproportionate impact on children, women and the elderly and lead to higher mortality due to their less developed immunity and increased vulnerability.

Urban living further increases risks for the poorer migrants who end up in city slums or low income settlements from slummy environments, high levels of congestion, poor basic services, unsanitary conditions, food shortages and malnutrition from interruptions in food supplies, etc. Women and older girls within low income populations also face, in particular, discrimination in accessing jobs, resources or services, or in controlling household expenditures. When homes are destroyed or damaged, women's sources of income are equally destroyed because they undertake income-earning activities from home. For people whose homes and neighbourhoods are destroyed, life in emergency or transitional housing can mean overcrowding, chaotic conditions, a lack of privacy and a collapse of regular routines with little or no attention to women's needs, priorities or personal safety (Cities Alliance 2009).

#### **Impact of Climate Change on Cities**

For cities too, climate-migration can have critical impacts. Cities need to be prepared for the large numbers of people who move in (temporary and permanent) and increased demand for services, housing, livelihood opportunities etc. India cities are beginning to experience water shortages and over exploitation of natural resources. City infrastructure is reaching capacity levels and is unable to cope with the demand. Cities such as Mumbai are facing seasonal flooding from inability of the city drains to carry away the vast amounts of rain because of drain capacity, poor maintenance and unplanned growth.

#### **Delhi**

The National Capital Territory of Delhi sprawls over 1483 sq km (148,300 ha) between latitudes 28° 24' 17" and 28° 28' 52" North and South West. It shares borders with the state of Haryana and Uttar Pradesh. The NCR comprises of the entire NCT of Delhi, eight districts of Haryana, one district of Rajasthan and five districts of UP with a population of over 371 lakhs as estimated in 2001.

Due to its geographical location and political status, its road and rail form a north - south corridor, which connects all the states together and makes Delhi easily accessible from all parts of the nation.

### **Growth of Delhi**

Delhi has continuously been inhabited since at least 6th century BC and has emerged as a major political, cultural and commercial city along the trade routes between northwest India and the Indo-Gangetic plains since then. After India attained its independence from the British rule, New Delhi was declared as the capital of the nation and seat of Government. Owing to the migration of people from across the country after independence, Delhi has grown to be a cosmopolitan metropolis. Its rapid development and urbanization, coupled with the relatively high average income of its population, has transformed Delhi to be major political, trade and commercial centre of India.

The phenomenal surge of Delhi's physical growth and the under-development of its surrounding areas, is primarily a problem of relationship rather than a problem of scarcity. The time taken to commute from Delhi to the farthest town is so short that no big centres of transportation and trading activities have developed in the outer ring of the National Capital Region (NCR). The entire region outside the Delhi Metropolitan Area is thus registering a relatively slow growth rate leading to lopsided development of the region characterized by the 'Metropolis-Satellite' syndrome, where part of the economic surplus of the periphery is extracted by the core and whatever development takes place in the periphery, mostly reflects the expanding needs of the core. Under this phenomenon, the region, rather than adding or accelerating its growth went on supporting the growth prosperity of Delhi whereby setting an uneven system tied up in a chain of 'Center-periphery' relationship. This relationship helped to raise the income levels in Delhi. Delhi with per capita income of Rs.19,779 at current prices (1995-96), as compared to all India per capita income of Rs.9,321, has the distinction of having highest per capita income in the country. Thus, ample job opportunities coupled with higher wages and earnings provide enough opportunities for the people to migrate to Delhi.

It is evident that presently, growth has been totally due to:

- ▶ Material growth of city.
- ▶ Metro cities serve as centres for international trade and development providing facilities and know-how necessary for these international transfers of goods and services.
- ▶ Provides cost and efficiency advantage to business activities.
- ▶ Provides for a large market.
- ▶ Provides for infrastructure like international airport, transport, power, health and education facilities.
- ▶ Politically a sound and physically well-planned seat of power.
- ▶ Capital inflows due to opening of international trade.

### **Trends of Urbanization**

Urbanization has increased rapidly since 1911 when Delhi became the capital of the country. The pace was accelerated during 1941-51 when the country was partitioned and refugees started settling in Delhi. 90% of the population was living in urban areas by 1991, compared to 57.5% in 1911.

The trend of Urbanization in Delhi is reflected in the fact that urban area has increased from 326.54 sq.kms. in 1961 to 924.68 sq.kms. in 2001. This urban area was 22% in 1961, 40% in 1981 and 47% in 1991 and 62% in 2001 of the total area. Similarly, the urban population of Delhi which was 14.37

lakhs in 1951, increased to 23.59 lakhs in 1961, 84.71 lakhs in 1991 and 129.05 lakhs in 2001. This urban population was 88.72% in 1961, 92.73% in 1981, 89.94% in 1991 and 93.18% in 2001 of the total population of Delhi.

Rapid urbanisation has led to one distinctive feature in Delhi- different types of settlements. The types of settlements in Delhi are categorised in terms of civic infrastructure, types of houses, authorised vs. unauthorised settlement etc. The types of settlements are listed below:-

- ▶ Jhuggis and jhoparis resettlement colonies
- ▶ Slum resettlement colonies
- ▶ Refugee resettlement colonies
- ▶ Approved/planned colonies
- ▶ Unauthorised-regularised colonies
- ▶ Urbanised colonies
- ▶ Urbanised villages
- ▶ Jhuggis and jhoparis clusters
- ▶ Notified slum areas / Walled City
- ▶ Rural villages

In Delhi, occupational patterns as well as the standards of living vary by types of habitat. According to the 1991 census, 79.48% of households have electricity connections and 63.38% of households have toilet facilities. About 60% of the households have both electricity and toilet facilities, 75.7% have piped water supply (individual plus sharing) while 20% depend on hand-plumps/tube-wells. 46.5% use LPG as domestic fuel while 42% of the households use kerosene as fuel. (Economic Survey of Delhi 1999-2000)

The rapid urbanization of Delhi has resulted in sharp increase in the density of population. In 1901, the density was 274 persons per sq km, which increased to 1176 persons per sq km in 1951 and 9294 persons per sq km in 2001. The density of urban population in Delhi, which was 7225 persons per sq.km in 1961, increased to 9745 in 1981, 12098 in 1991 and 13957 in 2001. This pace of urbanization has had its impact on the contribution of the primary sector in State Income of Delhi. The contribution of the primary sector, which was 7.10% in 1960-61 in the State Income of Delhi, has declined to 1.06% in 2005-06.

### **Economic Growth**

Delhi has always been the market place of Northern India and has various industries like textile, handloom, arts and crafts. Delhi also happens to be an important trade route between Punjab and Gangetic plains, which makes it an important trade centre and manufacturing hub. Over the years several new industries have evolved which has contributed to Delhi's industrial growth. These industries include jewellery, export, embroidery, silver vases, textile, fashion, corporate industries, BPO, IT, ITES, health related and many others. The city's economy is primarily dependent on these industries and the service industry of the city adds to the overall GDP which has shown a tremendous growth over the years.

Delhi has a strong and vibrant economy which is quite vivid from its Gross Domestic Product. According to economic survey of Delhi- 2000-2001, Delhi's GDP was 478 billion INR and per capita income of 38,860 INR. The annual economic growth rate of Delhi was 9.9%. in which the tertiary sector contributed 78.4% with secondary and primary sectors contributing 20.2% and 1.4% respectively. The tertiary sector is comprised of service sectors like trade, real estate, hotels, restaurants, financing, banking, insurance, business services and other service centred industries. The contribution from this particular industry increased from 70.47% in 1993-94 to 78.39% for the



year 2000-2001. During May 2007, Delhi has recorded its industrial growth at 11.1 per cent during May 2007 which continues to keep India's growth story intact.

Delhi's growth can be attributed to a number of reasons. Delhi's service sector has expanded due in part to the large skilled English-speaking workforce that has attracted many multinational companies. Being capital of the country, Delhi is the centre for policy making/lobbying and advocacy, especially related to business/economic activities which in turn attract the MNCs and big corporate houses to have their head offices at the power centre of the nation. Delhi's manufacturing industry has also grown considerably as many consumer goods industries have established manufacturing units and headquarters in and around Delhi. Delhi's large consumer market, coupled with the easy availability of skilled labour, has attracted foreign investment in Delhi.

However, Delhi is not rich in agriculture. Some agricultural land is found in the outskirts of Delhi, where the major crops grown include vegetables, wheat, gram, Bajra and Jowar. Animal husbandry is another profitable industry in Delhi with optimum and surplus dairy production to meet the consumption within the city as well as outside Delhi.

Delhi is not rich in raw materials and has limited mineral resources. However, deposits of building & road making materials and China clay are found in some parts of the city. The building and road making material comprises sand, stone and bajri. The quartzite rock available on the ridge is very useful for the manufacturing of stone wares and buildings. Kaolim is used as a principal raw material for re-factory industries and fire clay for brick manufacture and china ware.

The industrial growth is also due to promotional policies of the government aimed at achieving optimum level of production with minimum power, less space and also to achieve maximum employment of skilled and unskilled labour. Delhi's workforce constitutes 32.82% of the population showing an increase of 52.52% between 1991 and 2001. Delhi's unemployment rate decreased from 12.57% in 1999–2000 to 4.63% in 2003. In December 2004, 636,000 people were registered with various employment exchange programmes in Delhi. In 2001 the total workforce in all government (union and state) and quasi government sector was 620,000. In comparison, organised private sector employed 219,000.

Delhi has India's largest and one of the fastest growing retail industries. As a result, land prices are booming and Delhi is currently ranked the 7th most expensive office hotspot in the world, with prices at \$145.16 per square foot. As in the rest of India, the fast growth of retail is expected to affect the traditional unorganized retail trading system in the near future.

### **Demographic Trends**

Delhi has been one of the fastest growing cities in the country, clocking over 47% decadal growth from 1991-2001, more than double the national rate. A large part of this rapid growth has been due to the high level of migration.

The annual average exponential growth rate of population of Delhi was the highest (6.42%) during 1941-1951 due to large-scale migration from Pakistan to India after partition in 1947. Since then the growth rate has varied between 4-4.5% annually. However, during 1991 and 2001 it was recorded to be 3.85% which is almost double the national annual growth rate.

### **Population growth, spatial distribution and density**

In 1991, the census was conducted considering Delhi as a single unit. Post 1996, Delhi got divided into 9 districts and 27 sub divisions through a gazette notification by the GoNCT according to which the census of 2001 was conducted. The decadal growth for Delhi was noted to be 47.02%.

### Density

Density of population is one of the important indicators to study population concentration. It is defined as number of persons living in per sq. kilometer. The population density of Delhi is worked out to be 9340 persons per sqkm as per 2001 census which is way beyond the national standard of 324 persons per sqkm. The density of population in Delhi is highest among all the states/UTs in the country.

**Table 16 Population Density (Delhi)**

Districts	Population Density	
	1991	2001
North east	18088	29468
Central	26261	25855
East	15986	22868
West	11116	16503
North	11471	13025
South	6012	9068
North west	4042	6502
New Delhi	4791	5117
South West	2583	4179
All Delhi	6352	9340

### Migration

Like all major cities in the country also in the world, the capital city of Delhi faces a huge amount of in-migration every year. This creates tremendous pressure on existing infrastructure and their maintenance.

### Evolution of Delhi in context of Migration

The evolution of Delhi can be linked to circumstantial development and time. It can be classified as historic, induced and spontaneous. Historic is based on cultural and religious beliefs. Induced developments were a result of urban pressures, policies or plan-making mechanisms, e.g., migration from partitioned Pakistan, settlement of refugees and migration due to jobs in central Govt or PSUs. Spontaneous development constitutes informal residential areas - considered illegal by city managers. Additionally, development in Delhi is linked to four different periods. These periods are pre-colonial (before 1911), pre-independence (1911-1947), post independence (1947-1961) and Master Plan period (1961-1981). During each of these periods migration to Delhi has been circumstantial. Pre-colonial period as already stated was based on traditions, cultures and religious lifestyles promoted by invaders. Pre-independence was related to migration of the British and development of trade. Post -independence was based on migration of refugees from partitioned Pakistan. Master Plan Period refers to temporary migration from rural areas in search of employment. Presently, it has become an alternative, central place for international trade as well as seat of power. The increase in Delhi's population from 4.1 million in 1911 to 14.37 million in 2001 is the highest in the world. Major increase during the master plan period has been in last two decades from 5.2 million to 13.4 million.

The estimates of migration in Delhi are based on birth and death rates and total increase in population. It is revealed from the estimates that percentage of migration was 50.42% in 2000 whereas percentage of natural growth in 2000 was 49.58%. In absolute terms, natural increase in population during 2001 was 2.15 lakhs whereas migration has been estimated at 2.75 lakhs. The trend of migration from 1991 to 2004 is given in the table below explains the proportion of growth which is being contributed by migration.

Contribution of Migration to the Population growth of Delhi

**Table 17 Population growth in Delhi by Natural Increase and Net Migration**

Year	Population Growth (Figures in Lakhs)			
	Total	Total	Natural Increase	Migration
1991	95.5	3.89	2.11	1.78
1992	99.37	3.87	2.12	1.75
1993	103.38	4.01	2.06	1.95
1994	107.5	4.12	1.94	2.18
1995	111.74	4.24	2.06	2.18
1996	116.1	4.36	2.07	2.29
1997	120.57	4.47	2.18	2.29
1998	125.14	4.57	2.04	2.52
1999	129.82	4.68	2.09	2.59
2000	134.6	4.78	2.37	2.41
2001(p)	139.5	4.9	2.15	2.75
2004	152.79	-	2.21	-

*Source: Economic Survey of Delhi 2003-04*

Composition of Migrants to Delhi

The following table would explain the percentage of migration taking place from various states to Delhi during the period 1981 to 1991

**Table 18 Composition of Migrants to Delhi**

State	% of Migrants
Uttar Pradesh	49.61%
Haryana	10.26%
Bihar	13.87%
Rajasthan	5.16%
Punjab	4.72%
West Bengal	3.18%
Madhya Pradesh	1.85%
Other States	17.39%

The major reasons for migration to Delhi are indicated in the table below:

<b>Table 19 Reasons for Migration</b>		
<b>Reasons</b>	<b>% of Migrants</b>	
	<b>1981-91</b>	<b>1991-2001</b>
<b>Employment</b>	31.29	37.6
<b>Business</b>	4.07	0.5
<b>Education</b>	2.28	2.7
<b>Family moved</b>	41.45	36.8
<b>Marriage</b>	15.62	13.8
<b>Natural calamities</b>	0.13	-
<b>Others</b>	5.16	8.6

#### Duration of Migration and Employment

As per a survey done by 'The Institute of Economic Growth, Delhi', a majority of the migrant workers were employed as petty traders or vendors in the service sector and manufacturing. Together these account for over 80% of the migrant population.

The Planning commission recently released State Specific Poverty Line and their number on the basis of NSS 61 round (July 2004 – June 2005). Accordingly, the poverty line for rural Delhi was estimated as Rs. 410.38 as against All India estimates for same sector at Rs. 356.30. Like-wise in case of urban Delhi, the poverty line has worked out to Rs. 612.91 as against Rs. 538.60 at the All India level. The total number of people below poverty line in Delhi comes to 22.93 lakhs which amount to 14.7% of the total population. Sector-wise break-up revealed that 6.9% of the rural population (0.63 lakhs) and 15.2% of the urban population (22.30 lakhs) were estimated to be below poverty line. The number of people below poverty line have nearly doubled in Delhi i.e. 11.49 lakhs in 1999-2000 to 22.93 lakhs during 2004-2005 which is a matter of concern.

In addition, large scale influx of commuters also known as floating population come to city everyday for work, medical care, study and sports. As per NSS 58 round survey conducted during 2002, about 33234 households had migrated to Delhi during the year 2002 of which 84.89% families moved permanently and 15.11% on seasonal basis.

#### **Faridabad**

Faridabad, the biggest urban agglomeration of the State of Haryana, shares borders with Delhi and is directly dependent on it. It has been identified as one of the towns in the National Capital Region (NCR) and the only other Metro city in the NCR, other than Meerut.

Founded in 1607 AD by Sheikh Farid, Emperor Jehangir's treasurer, Faridabad later became the headquarters of pargana and was held as a jagir by the Ballabgarh ruler. Post independence it attracted refugees during the 1947 partition. Today it is one of the most populated and industrialized city of Haryana generating nearly 60 percent of the State revenue. Faridabad is also well-known for the production of *Heena* and large number of industrial products such as tractors, motorcycles, switch gears, refrigerators, shoes and tyres.

Administratively, Faridabad is divided into five sub-divisions. The Faridabad Municipal Corporation consists of Old Faridabad, Ballabgarh and NIT (New Industrial Township).

#### **Urbanisation and Demographic Trends**

Faridabad's population of 10.5lakhs as per Census 2001 is expected to reach 17.5 lakhs by 2011, growing at an estimated decadal growth rate of 70% and an average annual CAGR of 5.38 percent since 1991-2001 and 2001-11. The NCR regional plan for 2021 has pegged population growth for

Faridabad at 16 lakhs by 2011 and 25 lakhs by 2021. The growth of Faridabad can be attributed to it being identified as an industrial-cum-housing estate, essentially to relieve the pressure of population growth in Delhi and to decentralize industries. As a hub of industrial activity, it has over 600 heavy/medium and small-scale industries. For the past four decades, rate of population growth in Faridabad although high, has been dipping and can be because of gradual stabilisation in population across the country.

**Table 20 Population Growth of Faridabad**

Census Year	Total Population	Decadal Change	Growth Rate (Percentage)
1961	56,000	-	-
1971	1,22,000	66,000	117.86
1981	3,30,864	2,08,864	171.20
1991	6,25,085	2,94,221	88.93
2001	10,55,938	4,30,853	68.93

Source: Census of India, respective years

### **Population Density**

Presently Faridabad is spread over 207.88 sq.km. No new areas have been added to it since the city was declared a Municipal Corporation. As a result the city densities have doubled since 1991. Despite high densities, these are understood to be within a comfortable range.

**Table 21 Density Pattern in Faridabad and Other Cities in India**

Year	Municipal Corporation of Faridabad		Other cities in India	
	Area- Sq.km	Density Persons/ Sqkm.	City	Density Persons/ Sqkm. (2001)
1991	207.88	3007	Pimpri-Chinchwad	5,902
2001	207.88	5080	Kota	3,137
2006	207.88	6129	Visakhapatnam	8,683

Source: Census of India

While areas towards the city of Gurgaon have experienced fast paced growth due to growing real estate values and private colonizing, the rest of Faridabad has grown less rapidly and only recently has seen some commercial development (shopping malls, multiplexes etc.).

### **Sex Ratio and Literacy**

Both sex ratio and literacy levels in the city have improved albeit are lower than national norms. Sex ratio has improved from 740 in 1981 to 817 in 2001. The low sex ratio can be attributed to poor track record of the state on women's empowerment, large numbers of male migrants for jobs in the industry and presence of migrants from Rajasthan. Overtime this migrant workforce has been integrated within the city, having built up the required skills demanded in the industry. Faridabad literacy level is 80 percent as per the Census 2001.

**Table 22 Sex Ratio and Literacy Level**

Parameter/ Year	1981	1991	2001
Sex Ratio	740	804	817
Literacy	-	-	80%

Source: Municipal Corporation of Faridabad (2006)

### **Industrialization**

Manufacturing industries are the key economic drivers in Faridabad and has several multinational companies (MNC), ISO-based industries, medium and large-scale industries, small-scale units, besides large numbers of smaller industrial units functioning from various locations including residential areas; that provide direct and indirect employment to large numbers of people. Nearly half a million are employed in the Ballabgarh estate ranked as the 9th largest industrial estate in Asia with a pooled turnover of Rs.1,500 billion. Major industrial production in the city includes tractors, steel re-rolling, scientific instruments, power looms, agriculture implements, JCB cranes, etc.

Work force participation rate (WFPR) as per Census 2001 was 31 percent or about 3.3 lakhs. An equal number are found to travel daily from various NCR areas to the city as Faridabad absorbed both skilled and unskilled labour, mostly in the tertiary/ services sector. WFPR of Faridabad has however dropped from 34 percent in 1981 to 30 percent in 1991 possibly due to a diversification in industries from household and services, changing the economic character of the city from predominantly primary/ secondary to tertiary/ service oriented, generating demand for a different set of skills. The trend is similar to that in NCR as a whole. Faridabad has been slow in taking advantage of the new economic policies of the Government of India that have encouraged foreign direct investment in the information technology (IT) and bio-technology (BT) sectors.

There are five major industrial associations in Faridabad which play a big role in terms of the development and regulation of industrial activity in the city. These are: Faridabad Industries Association, Faridabad Small Industries Association, Laghu Udhog Bharti, Faridabad Manufacturers' Association and Faridabad Chamber of Commerce & Industries

Industrial pollution (both air and water) is a key area of concern mostly the result of the movement of heavy goods and raw material, the operation of several small-scale industries within residential areas, absence of common effluent treatment plants (CETP) for treating the large quantum of waste water generated within these units.

### **Poor and Slums in Faridabad**

Absolute poverty, according to the CDP, and as per the general definition; 'not enough to eat', is not prevalent in the city, except amongst a few living in slums. Most poor in the city live in poor quality housing with low access to basic infrastructure. The city reports 67 identified slum clusters with a total slum population of 132424. Current estimates suggest that the population living in the slums may be 1.47 lakhs. That accounts for about 12 percent of the total city population. According to guesstimates by the Ministry of Housing and Urban Poverty Alleviation, Faridabad may have 46% of its population living in slum areas, being second only to Mumbai with 54% people in slums.

The rapid industrial development has contributed to the growth of slums in Faridabad. Large numbers of labourers have migrated to the city and settled on available vacant lands largely belonging to the Central and State Governments, Municipal Corporation of Faridabad, Haryana Urban Development Authority, Wakf board, Rehabilitation Department, and on private lands. Non-availability of affordable and serviced housing has also been responsible for people setting in slums. MCF, HUDA and the District Administration have made several attempts to demolish these slum settlements but have been unsuccessful due to relief offered by various civil courts.

**Table 23 Slums in Faridabad and their populations**

Zone		Huts/ Structures	Population (2001)	Population (2006)
1	NIT zone	15802	71792	79694
2	Ballabgarh zone	7032	31294	34739
3	Old Faridabad zone	6874	29338	32567
<b>Total</b>		<b>29708</b>	<b>132424</b>	<b>147000</b>

*Slum Survey, 2001 & Estimates*

## **Bengaluru**

Bengaluru is the capital city of the one of Indian states – Karnataka. The city is located on the Deccan Plateau in the Southeastern part of Karnataka at an average elevation of 920 m. It is positioned at 12.97°N to 77.56°E. As a large and growing metropolis, Bengaluru is home to some of the most well recognized colleges and research institutions in India. A number of public sector industries, software companies, aerospace, telecommunications and defence organizations. Bangalore is headquarters to several public manufacturing heavy industries such as Hindustan Aeronautics Limited (HAL), National Aerospace Laboratories (NAL), Bharat Heavy Electricals Limited (BHEL), Bharat Electronics Ltd. (BEL), Bharat Earth Movers Limited (BEML), and Hindustan Machine Tools (HMT). In June 1972, the Indian Space Research Organization (ISRO) was established under the Department of Space and headquartered in the City. The United Nations Human Development Report 2001 has ranked the City fourth along with Austin (USA), San Francisco (USA), and Taipei (Taiwan) as the top “Technology Hubs of the World”; no wonder, Bengaluru is known as the “Silicon Valley of India”.

## **Growth of Bengaluru City**

Urban Growth and Migrants: Bengaluru has grown into big city over a period of time and is held to be the fifth biggest urban agglomeration area in India in 2001. According to the census of India 2001, Bengaluru has a population of 84.18 lakhs, with a growth rate of 29.27 percent. The population of Bangalore which was just around 50 lakhs in 1981, has bulged up to 85 lakhs in 2001 and likely to have surpassed one crore by now. The density of population of the city also has increased from 2210 (persons per sq.km) in 1991 to 2985 in 2001 indicating to the growing stress on the city’s urban infrastructure. Bengaluru Urban Agglomeration Area (UAA) joined with other mega cities of India in 2001, viz., Mumbai, Kolkata, Delhi etc. Unlike these mega cities, the population growth rate in Bengaluru city remained higher for 1991-2001. The growth of Bangalore from a town to a metropolis may be attributed to five important growth events:

- ▶ Shifting of the State Capital from Mysore;
- ▶ Establishment of the Cantonment;
- ▶ Setting up Public Sector Undertakings/Academic Institutions;
- ▶ Development of Textile Industry; and
- ▶ Development of Information Technology/ITES/Biotech based industries.

**Table 24 Growth of Population: Bengaluru (Urban)**

Year	Population	Density	Sex Ratio	Literacy Rate (%)
1961	2505000	NA	917	34.30
1971	3366000	NA	909	42.72
1981	4948000	NA	940	51.32
1991	6512000	2210	903	65.00
2001	8418000	2985	908	83.00

*Source: Government of Karnataka, Statistical Abstract, various years.*

Though it comprised of lowest number of migrants (6.2 percent of total city’s population), when compared with its peers, it attracted third highest number of migrants (0.76 million) in the present census period. Internal migration seems to be the major source for changes in net increase in inter-census population of Bangalore. The net increase in population during 1981-1991 and 1991-2001



was 12.1 lakhs and 15.6 lakhs respectively; the corresponding values of in-migration led increase in population stood at 45 percent and 49 percent.

**Table 25 Composition of Population Growth**

Composition	1981-91 (in Lakhs)	% of total	1991-2001 (in Lakhs)	% of total
Natural increase	2.66	22%	3.42	22%
In-migration	5.44	45%	7.00	45%
Jurisdictional Change	4.03	33%	5.19	33%
Total increase	12.09	100%	15.57	100%

Source: City Development Plan for Bangalore - BDA

An important feature, however, to be observed is that in the recent period the net increment in the inter-census period due to in-migration, has been at rise. Whether this increase in in-migration is due to current growth structure of Bangalore city is a matter of further analysis of this current study.

**Table 26 Economic Growth of Bangalore: 1980-81 to 2004-05**

Growth Indicators	Bangalore Urban District				Karnataka State			
	1980-81	1993-94	1999-00	2004-05	1980-81	1993-94	1999-00	2004-05
1. Gross Income (Rs. Crs)	3678	7172	14696	25042	19137	41079	63851	85724
2. Bangalore's share in State Income (in %)	-	-	-	-	19.11	17.46	23.02	29.21
3. Per capita income (Rs.)	7472	14127	22970	36592	5208	8706	12322	15527
4. Sector's share								
Secondary	42.44	48.92	39.23	35.41	22.65	26.15	27.39	28.86
Tertiary	47.53	47.96	56.72	62.91	33.56	38.27	43.7	52.61
5. Growth rates	1980-81 to 1993-94	1993-94 to 1999-00	1999-00 to 2004-05	1993-94 to 2004-05	1980-81 to 1993-94	1993-94 to 1999-00	1999-00 to 2004-05	1993-94 to 2004-05
5.1 Gross Income	5.32	10.79	9.29	10.98	6.05	6.5	5.03	6.32
5.2 Per capita income	5.02	7.19	8.07	8.25	4.03	5.09	3.93	4.94
5.3 Sector's Share								
Secondary	6.47	7.35	7.44	8.03	7.23	7.21	5.95	7.2
Tertiary	5.39	13.48	11.19	13.52	7.13	8.54	8.33	9.18

Source: Computed from Narayana (2005)

### **Economic Growth**

Bengaluru is one of the city's growing at a double digit growth in India. Much of its growth is fuelled by the tertiary sector followed by the secondary sector. The growth of even the state of Karnataka is highly influenced by the growth of Bangalore city, which has the highest share in the State gross domestic income. Gross district income or GDI (at factor cost and at constant or 1993-94 prices) of Bengaluru was Rs. 3658 crs in 1980-81 which increased to Rs 7172 crs by 1993-94 and to Rs. 250342 crs by 2004-05. The corresponding figures for per capita income stood at Rs. 7472 (1980-81), Rs. 14127 (1993-94) and Rs. 36592 (2004-05) indicating to a considerable rise in the city's economic growth.

As it can be seen from Table 26, the annual growth of Bangalore city is much higher than that of the State average. The Annual growth rate of GDI which was just 5.32 percent during 1980-81 to 1993-94, increased to 10.98 percent during 1993-94 to 2004-05; while the corresponding figures for the state of Karnataka as a whole did not show the same amount of increase. Perhaps the slightly higher economic growth rate (6.32 percent) for the State may be because of the excellent performance of the Bangalore district in the post 1993-94 period. The share of Bengaluru in the state income was 19.11 per cent in 1980-81 which increased to 17.46 per cent by 1993-94 and by 29.21 per cent by 2004-05. This higher share of Bangalore in the state income is usually attributed to the emerging new economic context in India mainly led by reforms and globalization<sup>3</sup>. It is also to be noted that the growth rates and levels of GDI and per capita GDI of Bengaluru remained higher than for Karnataka state, all India and urban India during this period.

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<sup>3</sup> See Narayana (2005, 8).

### **Dodballapur**

Dodballapur taluk belongs to Bengaluru rural district of Karnataka, India. It is situated at a distance of 40 kms from Bengaluru and is a sub-division and taluk centre.

**Table 27 Growth of Dodballapur (Bengaluru Rural)**

Taluk	Dodballapur
Distance from Bengaluru	40 km.
Area (Sq.Km.)	779.87
Population	268662
Decennial Population Growth	19.45%
Sex Ratio	951
Density	344
Literacy Rate	69.14%

*Source: Government of Karnataka, 2001, Karnataka Administrative Atlas.*

The place is covered by mountains and offers an uneven landscape with partially plain land area and is on the bank of river Arkavati. Newly constructed Bengaluru International Airport is very near to Dodballapur taluk. The Bengaluru-Hindupur Railway line passes through Dodballapur and is the nearest railway station.

The town is called as Japan of Karnataka because it is the home for many national and international industries. There is a big industrial area called Basettiahalli, which houses many large numbers of Industries. Dodballapur is known for weaving silks. The main activity of the taluk is manufacturing of silks by power looms; and other activities are - the production of Veena and Thamburi, Pottery works, Agarabatti etc.

The geographical area of Dodballapur covers 779.87 sq. kms having five Hoblies. It has 29 Grama Panchayaths and 297 Villages. As of 2001 census Dodballapur had a population of 2, 68,332 with an average literacy rate of 69.14%. The male literacy rate is 73% and female literacy rate is 62%. The sex ratio of Dodballapur taluk is 951 per thousand male and density of population is 344 per sq.kms respectively.

**Table 28 Dodballapur Slum Details**

Year	No. Of Slums	Population		
		Total	Male	Female
2001	17	10588	5424	5164
2008	11	6760	4110	2650

*Source: Government of India, 2001, Census of India, and KSCB, 2008*

Table 28 shows that according to the census of India 2001, number of slums existed in Dodballapur were 17 and the number of slum population was 10,588. According to the Karnataka Slum Clearance Board survey 2008, the total number of slums present in Dodballapur is 11 and slum population is 6,760.



## **Chapter 2: Methodology**

### **2.1 Rationale**

This study addresses the void in research on migration in the emerging economic context and contributes to urban restructuring and migration policy. Although research on migration has made significant contributions to understanding the socio-economic processes that shape migration, it has tended to limit its focus on distress migration, neglecting migration that happens among rural elites or from small to big towns for growth. While research has examined coping strategies of migrants, the sociological impact on the rural economies is much less analysed. The issue of floating migrants has also been a major omission in migration literature even as it has serious implications for urban development investment planning. The study therefore examines the political economy of migration and its impact on reducing household poverty and test two hypotheses:

- ▶ A very high rate of urban growth will still be inadequate to cope with migration demands on urban infrastructure, in particular absorb cost of floating migrants.
- ▶ Migration improves people's ability to move out of poverty only if assisted by an enabling urbanization cum poverty policy framework.

### **2.2 Objectives**

The research has four key objectives:

- ▶ Study the changes in internal migration trends in India, from distress to aspiration and metropolitan to small town migration.
- ▶ Examine the impact of the recent changes in country's economic paradigm (growth of IT industries and decline in agriculture growth) and rise in inflation, food and fuel prices on change in migration trends.
- ▶ Identify the complex factors and their inter linkages that contribute to migrant families capabilities of moving out of poverty.
- ▶ Review existing urban planning, policy and legislative guidelines that have implications for migration with sustainable poverty reduction.

### **2.3 Selection of Cities:**

The study aims to look at the migration context in 4 cities across India, namely 2 metro cities; Delhi and Bengaluru and two peripheral towns; Faridabad and Dodballapur respectively. The two metros being among the fastest growing in the country and attractive to migrants have been picked for the study. The neighbouring towns were picked to footprint migration patterns as much of the spillover of the large cities is captured in satellite towns. Peripheral city studies are aimed at understanding migration movements and have policy implications.

The cities mentioned above have been selected on the basis of the following parameters e.g. high migration growth rate, high magnitude of floating population, numbers of slums and rate of growth

of employment. Both Delhi and Bengaluru being emerging economic centres of India, easily qualified on these counts.

Delhi has observed high rate of urbanization since 1911 with about 93% of the total population residing in urban areas by 2001. This pace of urbanization has had its implication on economic growth (9.9% as on 2000-01 according to Economic Survey of Delhi) of Delhi with contribution of tertiary sector at 78.4% followed by secondary and primary sector. Population has also been growing steadily with the major decadal growth experienced during the master plan period from 5.2 million to 13.4 million (Source: Delhi 1999 A Fact Sheet). During year 2000, the percentage of migration was estimated to be as high as 50.42% as against the natural growth of 49.58%. Migration in Delhi has contributed significantly towards the population increase over the years. In addition, large influx of commuters', also known as floating population come to city daily for work, medical care, study and sports. Thus Delhi becomes the most attractive destination for migrants both for job aspirants and distressed.

Faridabad on the other hand, has been the satellite town growing near Delhi strategically established to relieve the pressure of population growth in Delhi and also to decentralize the location of industries. It is identified as one of the Delhi Metropolitan Area (DMA)/ Central National Capital Region cities of National Capital Region (NCR) and accordingly it has strong linkages with Delhi. Faridabad has been the hub of industrial activity of the state of Haryana. This industrial inducement coupled with natural growth of Faridabad increased many folds over the past four decades. However, the economic activity in the city is to a very large extent directly dependent on the national capital. Real estate activity has picked up considerably during the past five years. Private colonizers have developed and are in the process of developing large number of apartment and housing complexes in these areas. Major commercial developments in the form of shopping malls, multiplexes etc are observed to be still restricted to the NH 2 and its nearby surroundings. These together have contributed significantly towards increase in migration in the city.

Bengaluru has experienced a phenomenal growth during the globalization process in the country. The choice of Bengaluru was based on the criteria of rate of migration, magnitude of floating populations, number of slums and the response of the city to the changing economic context explained mainly by the changing growth and composition of manufacturing and service sectors.

The selection of Dodballapur, among others, was based on the study of the socio-economic characteristics of different peripheries of Bengaluru city. Choosing a town in the periphery of Bengaluru was essential in knowing the changing migration pattern; particularly to know whether the emigration takes place to a growing, though smaller, urban habitat or a bigger urban conglomeration like Bengaluru. Also the choice of such a town is required to know if there is any out-migration from Bengaluru to that town. These questions carry various policy implications for migration policy and urban management.

#### **2.4 Selection of Respondents**

The migration patterns were analyzed through primary data collection and compared with data from national level studies.

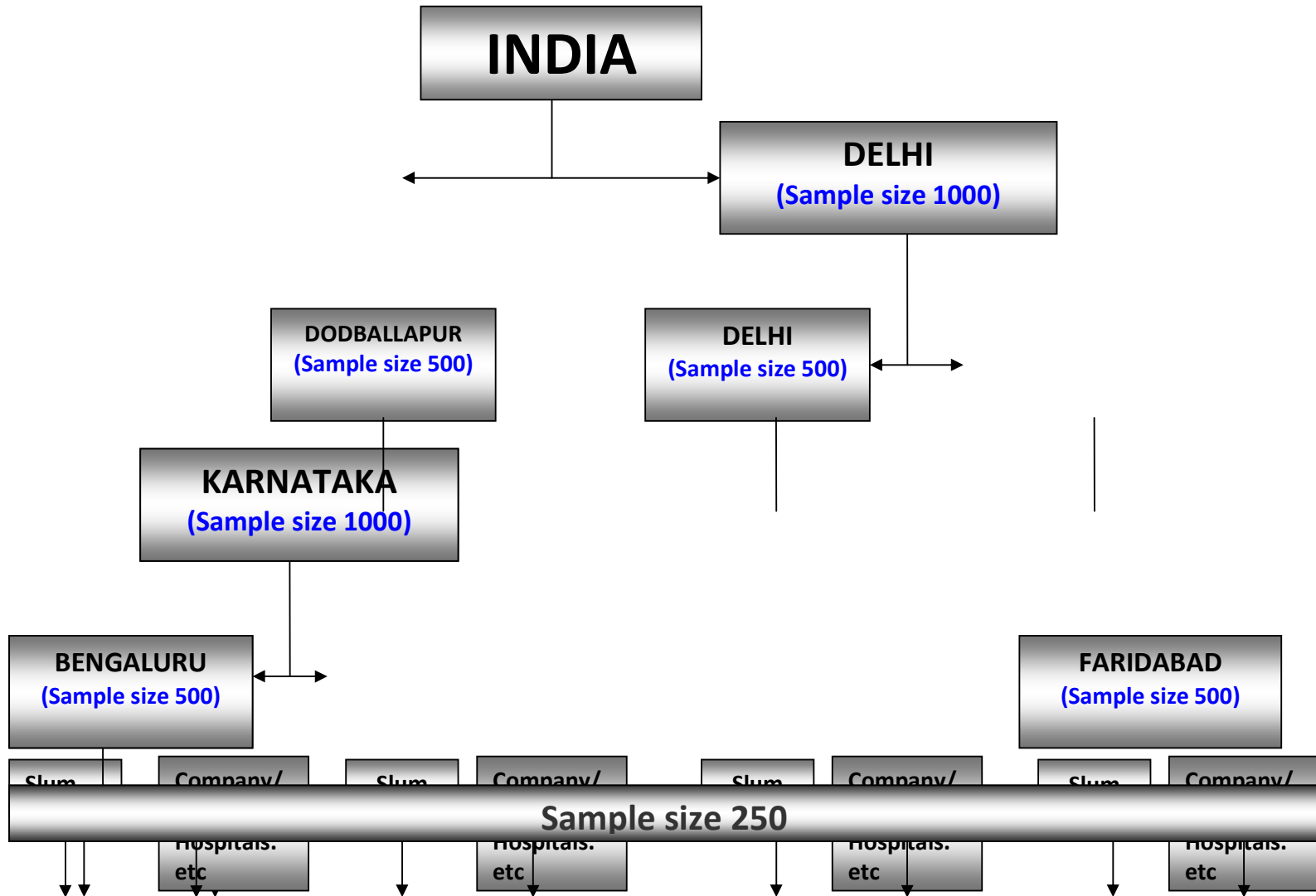
A sample of 2000 migrants; 500 per city was selected through two-stage disproportionate stratified random sampling method.

The sample is being further stratified to observe two types of migration patterns;

- ▶ Distress based migration; and
- ▶ Aspiration based migration

Accordingly, the sample has been selected from low income slum settlements and work establishments in the cities. The flow chart clearly indicates the detailed sampling design of the study.

Chart No. 2.1: Sampling Design of the Study







Slums in the sample have been selected on the basis of occupational stratification and geographical dispersion to ensure reliability. Aspiration migrants have been sampled through snowballing methodology from their work places. The detailed sampling plan is given below:

<b>Table 29 Sampling Plan</b>		
<b>Guidelines</b>	<b>For Delhi</b>	<b>For Faridabad</b>
In studying the migration trends we will use the heterogeneous purposive sampling as the first tier for selection of slums. Among the slums, we will be doing criterion purposive sampling.		
<b>Slum Sampling</b>		
Selection of predominant trades in the city which engages most of the migrants (distress)  The slums are selected in the sample keeping in mind the geographical dispersion.	<ol style="list-style-type: none"> <li>1. Industrial Area (Okhla) (Manufacturing units)</li> <li>2. Sabzi mandi (Azadpur)</li> <li>3. Near Commercial Area (Chandni Chowk)</li> <li>4. Construction Site (The games Village coming up beside Akshar Dham)</li> <li>5. Slums having concentration of workers as domestic Help (slums having around 85% population of Domestic help)</li> <li>6. National Highway - NH 10/NH4 for automobile and Dhaba sections.</li> </ol>	<ol style="list-style-type: none"> <li>1. Industrial Area (Manufacturing units)</li> <li>2. Sabzi mandi</li> <li>3. Near Commercial Area</li> <li>4. Construction Sites</li> <li>5. Slums having concentration of workers as domestic Help (slums having around 85% population of Domestic help)</li> <li>6. Highways - for automobile and Dhaba sections</li> </ol>
Criteria for selection of slums in each area	<p>Size: 2000-3000 HHs</p> <p>In case of non-availability of such a huge slum in a specific area, the biggest (in terms of the no. of residents) among the available will be selected.</p>	<p>Size: 2000-3000 HHs</p> <p>In case of non-availability of such a huge slum in a specific area, the biggest (in terms of the no. of residents) among the available will be selected.</p>
<b>Selection of the respondent from the slums (Delhi: 250; Faridabad: 250)</b>		
Total 250 respondents to be taken in the sample, spread across the 6-7 slum clusters selected based on the following criteria.	<p>Presently in Job and not unemployed.</p> <p>Recently migrated from 2-5 years, preferably who has migrated to at least one intermediate town. The intermediary town condition is flexible. For the first round of sampling we would take this as a condition. If the</p>	<p>Presently in Job and not unemployed.</p> <p>Tenure of Migration: Tenure should vary for the recent place of migration from 2-5 years, preferably who has migrated to atleast one intermediate town The intermediary town condition is flexible. For the first round of sampling we would take</p>

	required number of sample is not met, then we might relax this condition and take respondents in the sample who have migrated directly to the present city of residence.	this as a condition. If the required number of sample not met, then we might relax this condition and take respondents in the sample who have migrated directly to the present city of residence.
In case of selecting respondents for Aspirational Migration we only do a one stage criterion purposive sampling.		
<b>Aspirational Sampling</b>		
<b>Selection of Respondents (Delhi: 250; Faridabad: 250)</b>		
Selection of predominant trades in the city which engages most of the migrants	<b>Types of Employment</b> 1. Guards and service workers 2. Call centre/BPO 3. Metro construction workers 4. Institutional workers 5. Ward boys and nurses 6. Drivers	<b>Employer Agencies</b> 1. Agency that provides guards and service workers 2. Call centre/BPO 3. Private contractors 4. Institutional area offices 5. Hospitals/Private Nursing Homes 6. Car renting agencies
<b>Total 250 respondents to be selected across the trades selected based on the following criteria</b>	<b>Tenure of Migration:</b> Tenure should vary for the recent place of migration from 2 years to 5 years. They must be out of village for at most about 5 years with at least one intermediate town of migration. The intermediary town condition is flexible. For the first round of sampling we would take this as a condition. If the required number of sample not met, then we might relax this condition and take respondents in the sample who have migrated directly to the present city of residence.	<b>Tenure of Migration:</b> Tenure should vary for the recent place of migration from 2 years to 5 years. They must be out of village for at most about 5 years with at least one intermediate town of migration. The intermediary town condition is flexible. For the first round of sampling we would take this as a condition. If the required number of sample not met, then we might relax this condition and take respondents in the sample who have migrated directly to the present city of residence.

A large number of migration studies use snowballing by acquiring the initial respondents to refer to other migrants. This method is used to gain access to other migrants due to the location difficulties

associated with tracing them. However in a large number of cases a typical Snowball results into a bias of representatives from the same occupation or region. Since, the present study aims at drawing migrants from varied occupations, whose distribution however is not known, the study had to focus on purposive sampling method (maximum variable sampling). This method involves selecting the sample cases purposively referring to wide range of occupations, representing diverse background. In drawing samples from among different occupational groups snowballing was employed to locate migrants belonging to a similar occupation. By using this methodology, the risk of bias creeping in the form of representation from the same occupation or region could be reduced in a substantial manner.

### **2.5 Primary Survey**

Data for the primary survey was generated through questionnaires (*Annexure 1*) survey. The questionnaire addresses a large number of issues including but not limited to: foot printing of migration, determinants of both aspiration and distress related migration (price rise, climate change, and economic growth), comparative socio-economic status of households – pre and post migration, etc. The preparation of questionnaire was followed by a pilot study to ascertain data availability and field work feasibility. These were translated into local languages for use in slums and with low income communities. A team of about 10 field facilitators were engaged to complete the survey. These facilitators were given detailed orientation on the questionnaire. They were sent for the pilot testing to have a greater understanding of the questionnaire as well as the way of noting down responses. This exercise helped them sharpen their skills to conduct the questionnaire survey.

For further analysis and efficient management of data the questionnaires were computerized.

### **2.6 Statistical Analysis**

The statistical analysis of the quantitative data is carried out to understand the changing migration patterns and trends in urban areas in the context of India's economic growth, global financial crises and inflation and climatic changes and their impacts on migration. The trends and analysis is generated from primary level data of 2000 migrants in 4 cities; both distressed and aspirant migrants. Distressed migrants (DM) have been generally sampled from slum and low income communities and from unskilled or semi skilled occupations; the assumption being that these families may have been poor to start with and forced to migrate under the above conditions. Aspirant migrants (AM) were sampled from higher paid occupations with better living arrangements to understand the pull factors that have contributed to their movements. Data from the primary research has been read together with some macro level data on migration to arrive at conclusions.

### **2.7 Logistic Regression Analysis and Testing of Hypotheses**

A second level of statistic and econometric analysis is conducted to understand the significance of different factors that contribute to migration. Testing of hypotheses is method of making statistical decisions using experimental data. Critical test of this kind helps to arrive at a decision whether averages among two groups of data vary significantly or not. The statistic applied for the purpose is being t assuming that the sample variances of the independent samples have been unequal. All tests are carried out at 1% - 10% level of significance. Similar test using Chi-square statistic is being conducted to understand the level of association between variables contributing to migration. A detail on the test are given in *Annexure 2*.

Logistic regression analysis on the other hand, is a non linear regression models applied to understand the probability of a particular factor being instrumental in influencing the dependent

variable. Such a model is used when response variables are qualitative in nature. Ordinal logistic regression is used for the dependent variable having more than two categories with each category having a meaningful sequential order where a value is indeed higher than the previous one. Details are given in *Annexure 3*.

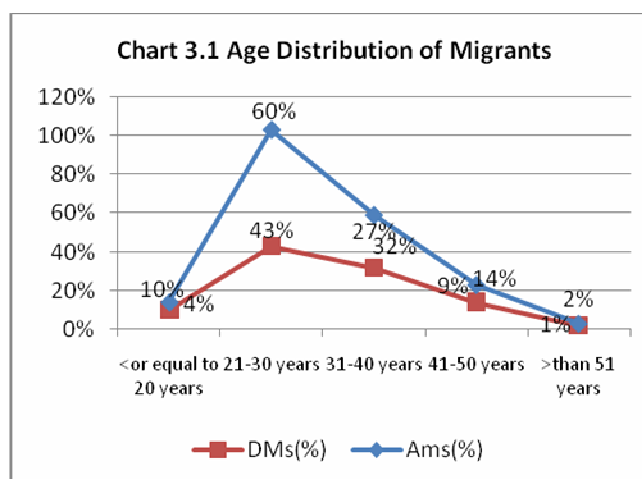
## Chapter 3: Analysis and Findings – For Delhi and Faridabad

### 3.1 Who are the Migrants: A Demographic Profile

#### 3.1.1 Age and Gender

Migrants in the study were mostly young people in both the cities; ranging in age between 11 and 68 years. A majority (52%) was between 21 and 30 years while just a small proportion - 1 in 4 - was older. AMs were younger at 28 as compared with DMs with an average age of 30. The cause of migration is significantly associated with age; the chi-square value at 4 degrees of freedom = 27.75 significant at 1% level of significance.

More young migrants in the age group of 21-30 years are aspirants. About 46% of the older migrants tend to move out of distress. The migrants in the age group of less than 20 years are distressed forcing them to come out of their native in search of existence.



Gender distribution pattern is typical; mostly men migrate to cities and just 1 in every 10 migrants is female. Since the respondents were selected at random this represents a true gender profile. The pattern holds true for both Distress Migrants (DMs) and Aspirant Migrants (AMs) and migrants across Delhi and Faridabad.

**Table 30 Age and Choice of Destination**

	Delhi	Faridabad
Less than or equal to 20 years	6%	7%
21-30 years	51%	52%
31-40 years	32%	27%
41-50 years	10%	12%
Greater than 51 years	1%	1%

Age is significantly associated with the type of migrants.

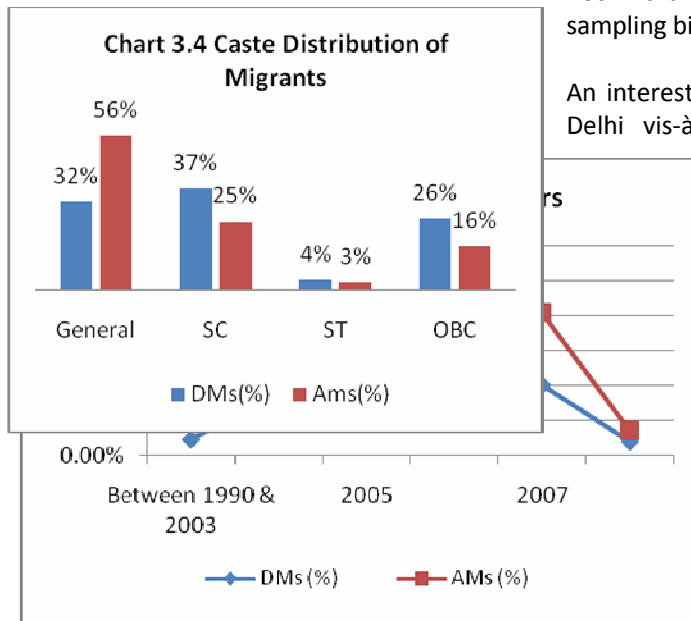
#### 3.1.2 Year of Migration

As the sample for the study was purposive and only those migrants were interviewed who had shifted recently to the cities, it is difficult to predict trends. However, the distribution across the 5 years suggests that bulk of the migration (54%) happened during the years 2005 and 2006, reducing somewhat in 2007 (20%) and higher than that in 2004 (17%). These jumps have coincided with disasters in Bihar and UP (floods in the year 2005 and 2007) affecting huge number of people across the two states. The drop in migration in 2007 corresponds to the period when agriculture production began to

**Table 31 Year and Cause of Migration**

	DMs (%)	AMs (%)
Between 1990 & 2003	4.7%	7.0%
2004	17.3%	15.8%
2005	26.6%	27.3%
2006	27.0%	26.5%
2007	20.3%	20.5%
During 2008 & 2009	4.1%	2.9%

increase a bit. Although one may have expected variation between AMs and DMs, the study does not find any difference and attributes this to our sampling bias.



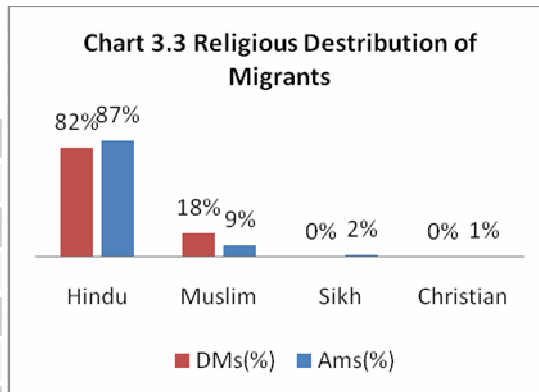
An interesting variation is evident in migration to Delhi vis-à-vis Faridabad; for each year Delhi received more migrants as compared to Faridabad, except for 2007. Higher migration to Delhi can be clearly attributed to the better economic prospects Delhi offers. However, confirming the study hypothesis, attraction to cities in metro neighbourhoods may be increasing because these cities are starting to grow fast, have better economic opportunities and less crowding. In contrast metros such as Delhi are hugely overcrowded with more people chasing each job, and more expensive to live in as

compared to smaller sized cities. Besides, the gap between a fast moving metro culture and the villages may be getting overwhelming for the newcomer.

### 3.1.3 Religion and Caste

Most migrants were Hindus; about 2 in every 10 were Muslims and very few were from other religions like Sikhs and Christians. This corresponds with the population distribution in general in the country

Religion	Delhi	Faridabad
Hindu	79%	90%
Muslim	18%	9%
Sikh	2%	0%
Christian	1%	1%
Jain	0%	0%



(Census of India 2001 distribution)

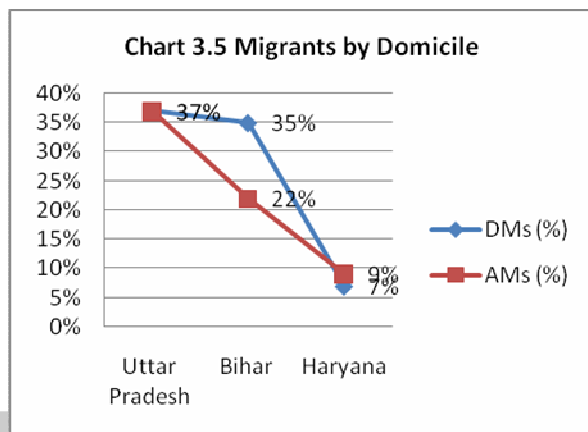
by religion is Hindus (80.5%), Muslims (13.4%),

Christians (2.3%) and Sikh (1.9%)<sup>4</sup>.

Although statistically insignificant, there were more DMs among the Muslims but more AMs among the Hindus. All Sikhs were aspirant migrants. More aspirants among Hindus could be attributed to their higher educational status in general.

A comparison between the two cities is interesting. Nearly twice the number of Muslim migrants were found in Delhi as compared to Faridabad and could be attributed the more cosmopolitan culture of a metro where people of all religions blend in easily and feel safe.

<sup>4</sup> Source: Census 2001 [http://censusindia.gov.in/Census\\_Data\\_2001/India\\_at\\_glance/religion.aspx](http://censusindia.gov.in/Census_Data_2001/India_at_glance/religion.aspx)



Lower castes dominate among all the migrants with SC, ST and OBC contributing a 55% share to the total. More of the distress migrants also belong to the lower castes (69%) compared with larger proportion of general caste migrants among the AMs (44%). Because lower caste groups have lower socio-economic backgrounds they are more easily distressed and hence predominate in this group.

A very small proportion of migrants come from scheduled tribes in both types of migrants (DMs: 4%; AMs: 3%). Tribal

States	Delhi	Faridabad
Assam	1%	1%
Bihar	33%	25%
Chhattisgarh	0%	2%
Gujarat	1%	0%
Haryana	6%	10%
HP	0%	2%
Jharkhand	0%	1%
Karnataka	0%	1%
Kerala	3%	0%
MP	1%	4%
Nepal	1%	1%
Orissa	0%	1%
Punjab	4%	2%
Rajasthan	4%	2%
UP	40%	34%
Uttarkhand	1%	8%
West Bengal	4%	5%
Chandigarh	1%	0%

communities are generally self-contained groups, less connected to the outside world and so less influenced by the growing prosperity and need for social mobility. They therefore do not migrate as easily/often.

### 3.1.4 State Affiliation

Migrants to both Delhi and Faridabad come mostly from the northern states. This corresponds with Census 2001<sup>5</sup> data on migration for Delhi and Faridabad where the top three states that contribute most to Delhi's migration were UP, Bihar and Haryana respectively.

The three states that send the most migrants to Delhi and Faridabad are sending both AMs than DMs to the city. In the case of UP and Haryana, the difference is quite insignificant, whereas in the case of Bihar, the difference between the two groups is high by 11%.

There is more in-state migration within Haryana with nearly twice the percentage of migrants from within the state moving to Faridabad. Bihar and UP in comparison, send

more migrants to Delhi than to Faridabad.

Interestingly, states such as Maharashtra, Tamil Nadu, Kerala, and Karnataka do not send any distressed migrants to Delhi; whereas the others send both AMs and DMs.

State affiliations of migrants suggests a direct and negative correlation with the state GDP; the lower the state GDP higher the migration. States at the bottom or the Bottom States (BMs) thus push out more migrants to growing urban areas due to a lack of opportunities in their own states. UP however, is an exception. Even though the state ranks second on the GDP index, it has low per capita GDP and high wealth inequality. And hence, despite a high GDP,<sup>6</sup> it fails to create an economic

<sup>5</sup> Source: Census 2001

[http://www.censusindia.gov.in/Census\\_Data\\_2001/Census\\_Data\\_Online/Online\\_Migration/Inter\\_State\\_Migration\\_Top\\_Three\\_States.aspx?cki=ksygnZAuRgT](http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Online_Migration/Inter_State_Migration_Top_Three_States.aspx?cki=ksygnZAuRgT)[Type text]

<sup>6</sup> Source: [http://mospi.nic.in/6\\_gsdp\\_cur\\_9394ser.htm](http://mospi.nic.in/6_gsdp_cur_9394ser.htm)



impetus for which the migrants would like to stay back. Besides, the relationship of GDP to development for people below the poverty line becomes null and void.

### 3.1.5 Family Structure before Migration

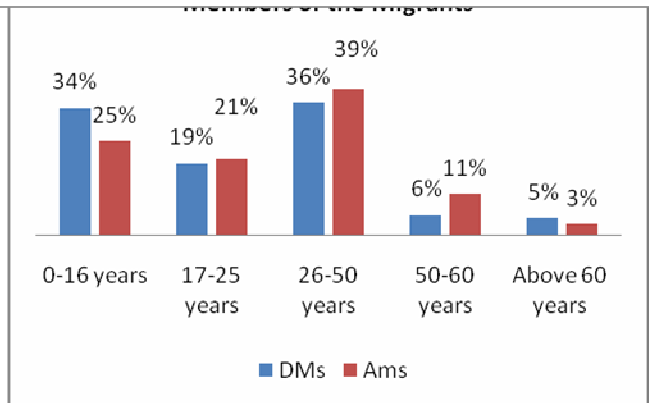
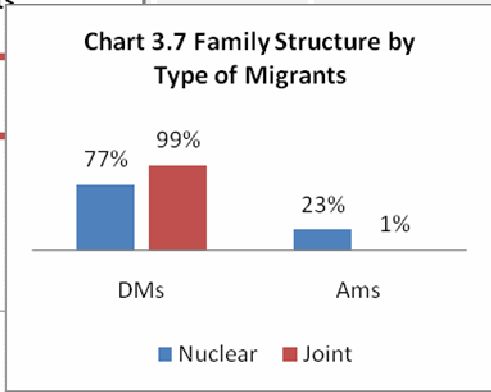
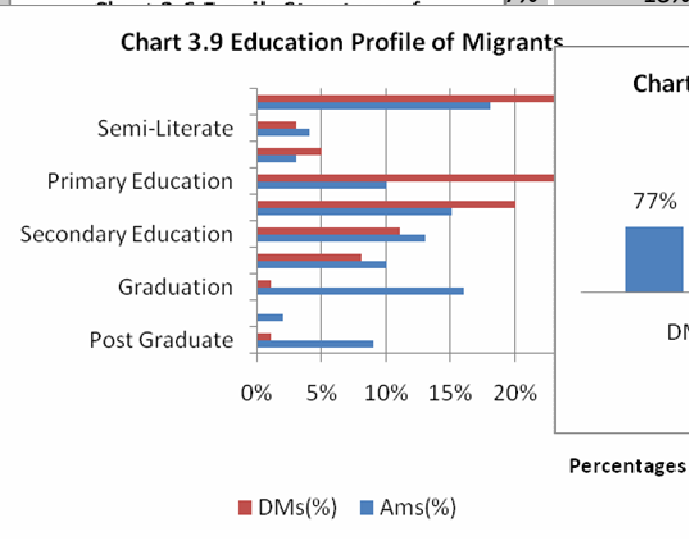
Nearly 75% migrants came from nuclear families; more AMs (89%) were from nuclear families as compared with DMs, suggesting that it may be easier to take important decisions such as these in smaller units.

Average family size of migrants was 6; DM families were larger at 6.5 as compared to AM families at 5.5. Dependency ratio or non-working members per working member for DM and AM families was 2 and 3 respectively. A low dependency ratio for DMs is not unexpected; more family members among the distressed are required to work so that families can survive. For AMs, they spend more time to complete their education, raising the dependency ratio.

### 3.1.1 Education

**Table 34 Educational Profile of Migrants**

	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Illiterate	27%	18%	30%	18%
Primary Education	44%	37%	5%	4%
Secondary Education	10%	37%		
Graduation	1%	10%		
Post Graduate	1%	10%		



More DMs (27%) are illiterate as compared to AMs (18%). The proportion of migrants opting for higher education (senior secondary and above) is significantly higher among the AMs (37%) and is as expected, as these people are intent on getting better earnings for their talent. In contrast, most DMs (44%) have been educated up till the middle school and only 10% had higher qualifications. The education is also significantly associated with the nature of migrants; Chi-square value at degrees of freedom 1 = 13.847 significant at 1% level of significance

Interestingly, Delhi receives twice the number of illiterates as compared to Faridabad, which gets nearly 41% of migrants educated up to and beyond secondary levels. Faridabad being an industrial

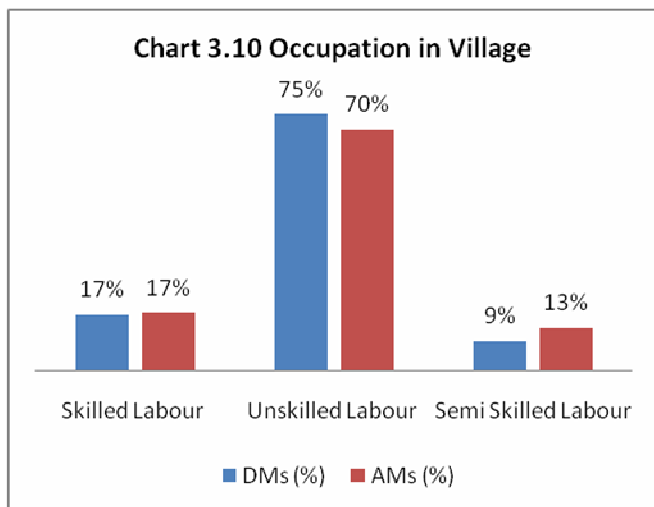
city requires more skilled and educated workers as compared with Delhi, which is able to provide employment opportunities to even the unskilled and illiterate people.

### 3.2 Pre Migration Occupations and Incomes

Occupation and income patterns of migrants were analysed both prior to and post migration to examine changes in occupation, skill and income levels. In this section we will analyse the pre migration status.

#### 3.2.1 Occupations

For the purposed of the present study, and since most migrants came from the poor communities;



occupations were categorised on the basis of skills; unskilled, semi skilled and skilled workers. The table below indicates the occupations and their groupings.

**Table 35 Categorising Occupation**

Category	Occupations
Skilled Workers	Masons, Electricians, Carpenters, nurses, word boys, farmers etc.
Semi-skilled Workers	Self Employed, Private Jobs etc.
Unskilled Workers	Labour, Rickshaw pullers, Helpers/Cleaners, Vendors, Shop assistants, Domestic helpers, Factory labour

The predominant occupation in the domicile village was hired labour; more than half of all migrants worked as labour. About one-tenth of migrants were farmer owners. The trend is similar across both types of migrants, expectedly more DMs were found to be in the unskilled labour category as compared with AMs. As expected, farming was the more dominant profession among DMs than among the AMs. However, similar proportions of AMs and DMs were found to be in skilled category.

The dominant states, that send most migrants to Delhi and Faridabad, have significant association with the skill set of migrants they send. More than one-third of the migrants coming from Haryana are skilled against 21% and 25% of the migrants sent by Bihar and UP respectively.

#### 3.2.2 Incomes

Average monthly family income prior to migration was Rs. 2434; the per capita per month income being Rs. 274. The average income for AMs was marginally higher at Rs. 2537 when compared with DMs at Rs. 2133. The monthly per capita income is also less for DMs at Rs.260 as against Rs. 291 for AMs.

Modal values were computed for both DMs and AMs and found to be the same; bulk of the migrants earned around Rs2000. Income distribution patterns indicate that almost all DMs (97%) and AMs

(96%) earned less than Rs.5000 per month at their native places which supported a family of average 6 members.

**Test of significance: Average income of DMs and AMs do not vary significantly**

To understand whether the difference among the income earned by the two groups (DMs and AMs) is significant or not, test of significance is being carried out. The null hypothesis for the test is defined as

H<sub>0</sub>: the average income of DMs and AMs do not vary significantly ( $\mu_1=\mu_2$ )

Against an alternative hypothesis

H<sub>1</sub>: the average income of DMs and AMs do vary significantly ( $\mu_1\neq\mu_2$ )

The statistic selected for the test is t statistic assuming unequal variance among the sample. Applying t statistics at degree of freedom 555 and level of significance 5%

Thu	Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05, Two\ tailed}$ )
S, $t_{cal} <$	1.36	1.96

$t_{\infty, 0.05}$ ; the null hypothesis H<sub>0</sub>:  $\mu_1 = \mu_2$  is accepted hence the average income prior to migration across the DMs and AMs do not differ significantly.

**Table 36 Frequency Distribution of Income Earned in the Village**

Monthly Income Classes	DMs (%)	AMs (%)
Less than or equal to 2500	77%	71%
2501 – 5000	20%	25%
5001 – 7500	2%	2%
7501 – 10000	2%	1%
> than 10000	0%	2%

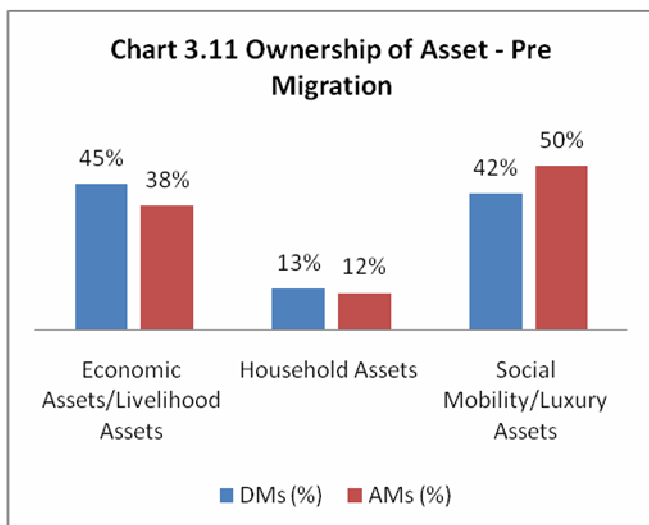
The monthly incomes have varied widely between Rs 500 and Rs 16000. Among the DMs, 30% families were reported to be below the poverty line as opposed to 26% among the AMs<sup>7</sup>. Incomes of the poorest families among the DMs were

Rs. 500 per month as against Rs.1000 among the AMs and the richest among the DMs earned Rs 10000 as against Rs 16000 per month among the AMs. These large income earners have possibly caused the skew in the average monthly incomes. There is also a significant association between the domicile of migration and the income they earned in their native places. As specified in the above table the proportion of migrants earning in the lowest income category (less than Rs. 2500) is highest for Bihar, UP and Haryana, 84%, 64% and 78% respectively. The next dominant category is income between Rs. 2501 and Rs. 5000. More migrants from UP (30%) earned in this category, however, the percentages for the same is significantly low for Bihar and Haryana at 13% and 16% respectively.

From the above analysis one can conclude that a key factor that pushes or pulls migrants to urban areas is the need to earn more.

**3.2.3 Asset Ownership before Migration**

<sup>7</sup> Rural poverty line at Rs. 350.50 and Urban poverty line at 538.60 (2004-05) - [www.fao.org/fileadmin/.../rural/.../paper\\_3\\_1\\_chatterjee\\_ITALY.doc](http://www.fao.org/fileadmin/.../rural/.../paper_3_1_chatterjee_ITALY.doc)



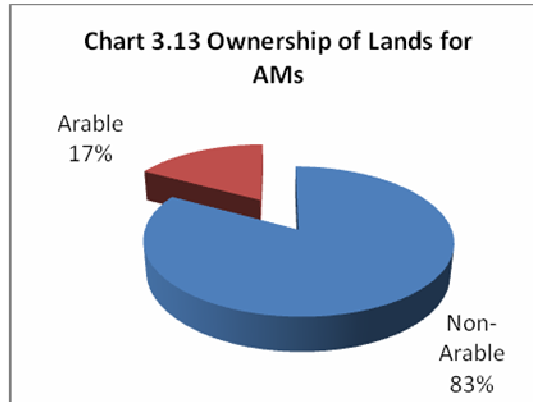
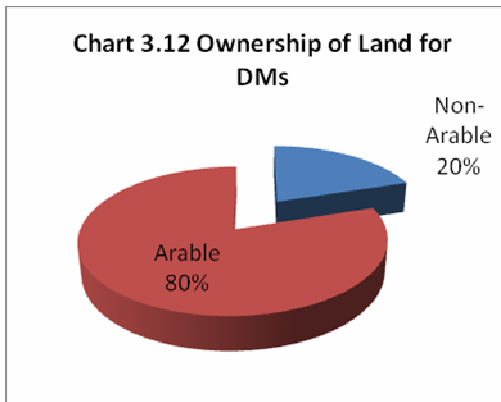
Asset ownership is an indication of family wealth. Asset ownership was analysed both before and after migration. For the purpose of asset analysis, assets were categorised as economic, household and livelihoods:

**Table 37 Defining Different Categories of Assets**

Category of Assets	Operational Definition	Assets
Economic	Assets with economic value or those which directly or indirectly help the owner to earn livelihood or add to productivity	Bore well, Computer, Auto, Tractor, Rheri/Cart, Kiosk, Shop, cycle, Mobile Phone, telephone etc.
Household	Assets used for household chores	Cooking Gas, Two wheeler, Cycle, 4 wheeler etc.
Social	Assets to meet social status/obligations	Cable/DTH Connection, Television, DVD Player, Cooler, Fridge, Radio etc.

Livelihood and social assets such as TV, fridges etc. were found in nearly equal proportions with all migrant families with social assets being marginally more available (46%) as compared with economic or livelihood assets (41%). AMs had greater social asset ownership as compared to DMs, where 45% families reported economic asset ownership in comparison to just 38% AMs. Ownership of household assets was low for both categories of migrants. While the asset ownership pattern corresponds with the state of wealth of AMs and DMs, the fact that less than half the migrants owned livelihood/economic assets is a significant finding and is indicative of the low capability of earning among migrant families.

### 3.2.4 Land Ownership



Ownership of land is a major asset among rural folk and reflects their ability to earn decent livelihoods and is a safety net in the face of disasters. Land ownership for farming was however low with just 1 in every 4 migrant families owning land. Among DMs land ownership at 28% was marginally higher than that for AMs (19%) suggesting that aspirant migrants did not come from farming backgrounds.

Interestingly, a significant association is found among selection of destination and ownership of land. More landless migrants moved to Delhi and land owning migrants preferred Faridabad.

Of all the land owners in the sample, arable land ownership among the DMs was high at 83%. The trend was completely the opposite for the AMs, where arable land ownership was as low as 17%. The fact that land owners possessed land that was cultivable has helped us to understand if these families were experiencing low agriculture productivity linked to changes in the climate patterns.

Mortgaging of land was seen among the DMs (18%), twice that for AMs (9%) suggesting that migrant families used land (where owned) to bail themselves from financial difficulties and hence were also in debt.

### 3.2.5 Debt and Borrowings

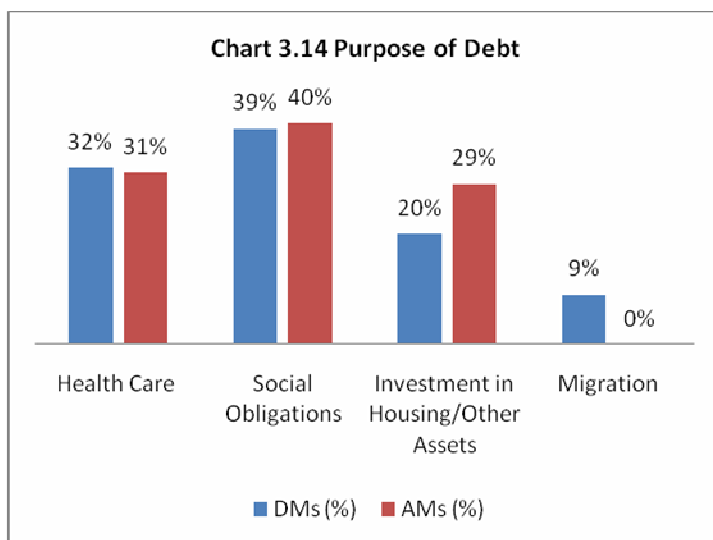
Debt in Rs.	DMs (%)	AMs (%)
≤ 5000	30%	20%
5001 – 20000	48%	52%
20001 – 40000	15%	14%
40001 – 60000	5%	9%
> 60000	2%	7%

One fifth of all DMs were in debt at the time of migration. This number was almost half in the case of AMs. The average debt was estimated at Rs. 40514 per family. Debt liability for DMs was lower at Rs. 31417 as compared with AMs at Rs.62489, and could be because of the formers' lower creditworthiness, even though borrowings were mostly from private financiers or money lenders.

Borrowing demand has however, ranged widely from just Rs.500 to Rs.12,000,00. Bulk of the migrants, have borrowed less than Rs.20000 (78% among DMs and 72% among AMs); Rs.10000 being the most common sum borrowed across DMs and AMs. However, greater amounts are borrowed by AMs (16%) more often than that among DMs (7%). Interestingly, 9% of DMs actually had to borrow money to meet the expenses for shifting; the average loan being Rs. 3625.

	DMs (in Rs.)	AMs (in Rs.)
Health issues	11375	213000
Social obligations	27308	970000
Investment in housing or other assets	83888	773650
Migration	3625	0

Migrants borrowed for health, social obligations, house building and to meet the expense of migration. Highest borrowings for DMs are seen for purpose of housing or other asset creation followed by obligatory social responsibilities and health. This can be attributed to resource intensity of such construction activity (one of the migrants reported borrowing of Rs. 10 lakh for this activity). This is possibly more indicative of the expenses required to be incurred under each of these heads than a reflection of the demand. In contrast, AMs borrow more for social obligations followed by housing investments and health.



This is also possibly because AMs may belong to families that are socio-economically better off and hence need to spend more money on expected social activities.

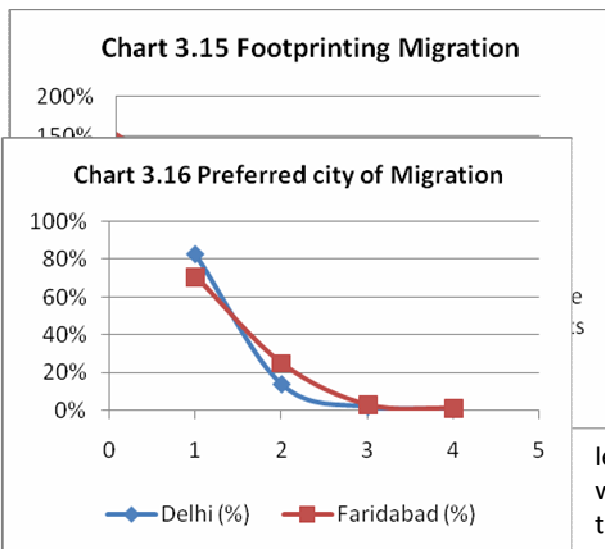
### 3.3 Foot Printing Migration

The migrants are interviewed at the final destination that is Delhi and Faridabad. However, the study has tried to capture migration footprints of the migrants before they arrived at their final destination (Delhi or Faridabad).

#### 3.3.1 Choosing the City

Among all respondents, incidence of first time migration was the maximum (77.5%); there were more first time migrants among the AMs as compared with DMs, proof of fact that aspiration based migration is gaining pace in cities like Delhi. Among the migrants surveyed, over half (55%) of the first time migrants preferred Delhi over Faridabad.

Mobility from one town to another was however, more common among DMs as 26% of them shift base once they migrate from their villages.

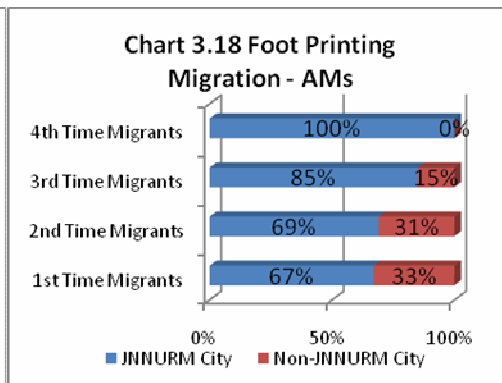
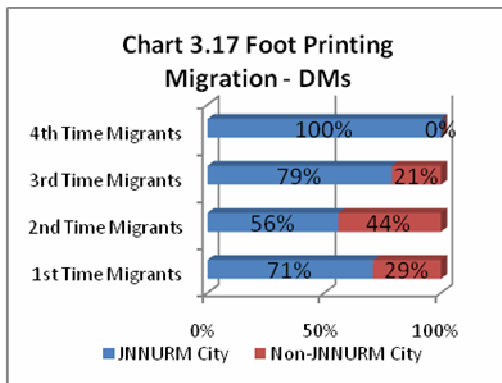


83% of the first time migrants preferred Delhi against Faridabad; the latter was preferred by 71% of such migrants. However, 2<sup>nd</sup> and 3<sup>rd</sup> time migrants preferred Faridabad over Delhi, with 25% and 3% of the second time migrants settling in Faridabad and only 14% and 2% of them in Delhi respectively. 4<sup>th</sup> time migrants, stayed indifferent between the cities.

Overall, Faridabad at 82% was the more preferred relocation city for rural to urban migrants (R-U) due to the higher comfort level it preferred being a peri-urban area, and was also less overwhelming and threatening than Delhi (77%).

Among urban-to-urban especially first-time migrants, larger cities were more preferred. The percentages steadily declined for 2<sup>nd</sup>/3<sup>rd</sup> and 4<sup>th</sup> timers. More DMs preferred smaller cities as against AMs.

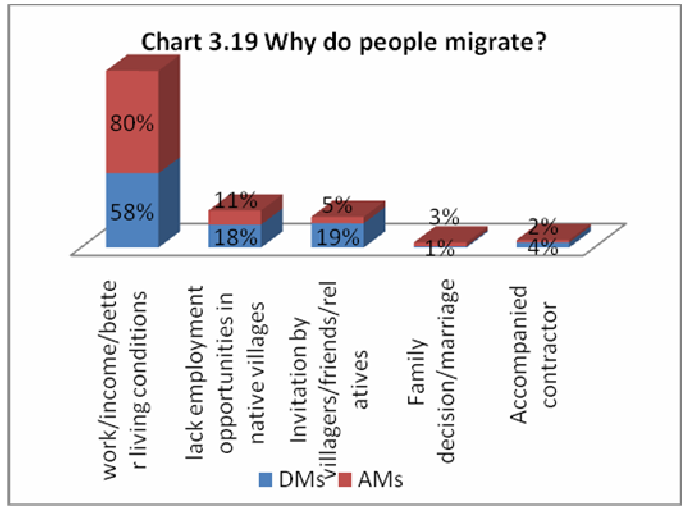
#### 3.3.2 Why do People Migrate?



Migration, across the two groups, is inspired by better opportunities; livelihoods, improved incomes and living standards. DMs significantly more than AMs, are motivated by the need to better their earnings/living standards. Aspiration Migrants find not enough opportunities in villages for their level of skills. Distressed families, even though driven out of native places for other reasons, see cities as places with better work and income opportunities (58%). Other reasons for migration include invitations from friends (19%), relatives or community members (1%); lack of employment in villages (18%) and sometimes head hunting by petty contractors for cheap labour (4%). The association explained above statistically significant at 1% significance. (Chi-square 15 degrees of freedom =

Delhi and Faridabad are equally preferred by migrants as a destination better income and job opportunities; however, (18.7%) is more commonly referred by friends and relatives than Faridabad Even the contractors bring labour forces more in Delhi against 1% in Faridabad);

direct relation with the commonwealth games that the city is preparing for. There has been a significant increase in infrastructural development over past 2-3 years which has also contributed the influx in the city. Migrants who move out of distress of having no jobs in the native places tend to select Faridabad over Delhi; due to its accessibility and peri-urban nature.



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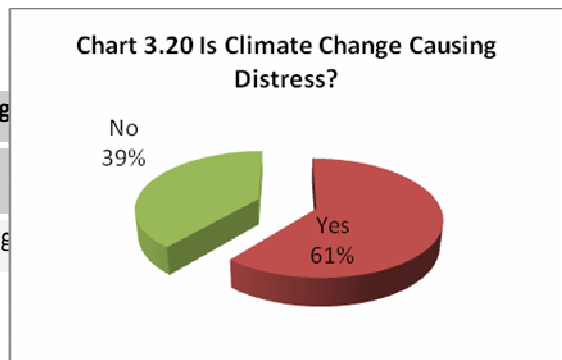
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### 3.3.2.1 Is Climate Change Causing Distress

A growing percentage of DMs who were involved in agriculture activities prior to migration felt that climate had changed over the past 5 years in their native areas; the percentage of people reporting change nearly trebling from 19 to 61 percent. Between one-quarter (28%) and half (55%) respondents felt that the timing and amount of rainfall was no longer predictable and affected the outputs and earnings and believed that weather inclemency was worsening.

### 3.3.2.2 Are Patterns of Agriculture Changing?

Table 40 Change
Indicators
Cost of Farming





There was an attempt in the study to understand the contribution of changing climatic and agriculture patterns to distress and migration. Nearly all migrants that moved out of their homes out of distress felt that farming was becoming more costly and less affordable; the rise in farming costs being most acutely felt around the time they had moved. Nearly 62 percent felt that the costs had still not come down to affordable levels.

Cost of Fertilizers	67%	33%	0%
Access to agricultural Water Supply	5%	94%	1%

Specifically the cost of fertiliser was reported to have increased over a period of five years significantly. As many as 67% of the DMs felt the cost of fertiliser had soared, making agriculture less profitable. It is also reported that over the years the practice of preparing indigenous fertilisers decreased from 31% to 14% and people are becoming more dependent on chemical fertilisers available in market raising the cost of farming.

Even as the rainfall pattern and quantity was changing, the DMs did not have access to additional irrigation facilities, these having remained constant over the past 5-10 years. However, about 5% DMs felt that access to agricultural water supply had increased and marginally 1% felt the accessibility has deteriorated.

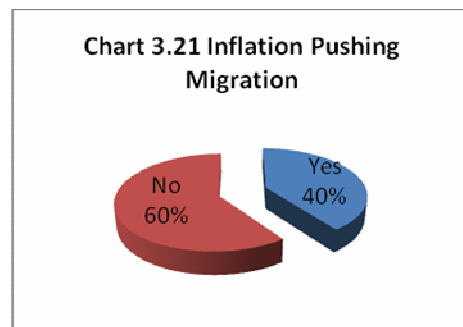


Table 41 Disasters		
	DMs (%)	AMs (%)
Disaster Incidences at source faced by migrants	29%	21%
No incidence of Disaster at source	71%	79%
<b>Impact of Disaster</b>		
Disasters had impact on migration	48%	37%
Disasters did not have impact on Migration	52%	63%

### 3.3.2.3 Disaster: A Cause of Migration?

One third of distressed migrants reported a disaster in their native areas prior to migration. Among these, more than half reported flooding in the past five years. Nearly 13% of flood affected reported experiencing floods

annually. More than one-third Distressed Migrants reported being seriously affected by the flood of 2006, followed again by 2007 (23%). About 48% of them decided to move because of losses from floods.

### 3.3.2.4 Inflation Pushing Migration

India experienced huge inflationary pressure in year 2008. Vulnerable families living at the edge of poverty were expected to be shocked into poverty and distress from rise in food prices and other commodities. This study made an attempt to examine the impact of price rise on migration and found that two-fifth of all DMs reported inflation to be a key factor in movement.

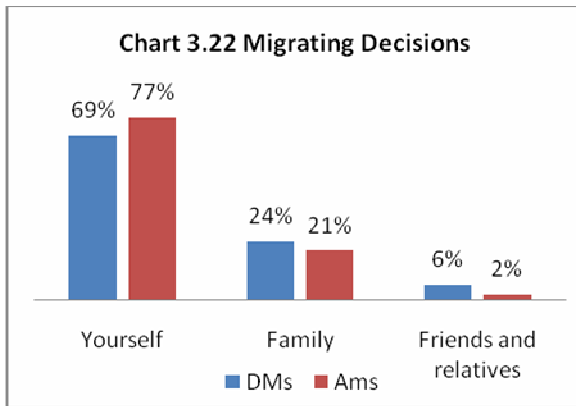
### 3.3.2.5 Changing Socio-Economic Infrastructure in Villages

<b>Table 42 Accessibility to Infrastructure and Other Facilities in Villages/Natives</b>			
	<b>Increased</b>	<b>Unchanged</b>	<b>Decreased</b>
Road	28%	69%	3%
Railway	4%	95%	1%
Personal Vehicle	27%	68%	5%
Credit	11%	88%	0%
Mobile Phones	69%	31%	0%
Telephone	25%	71%	4%
TVs and Other White Goods	27%	72%	1%
Electricity	25%	74%	1%
Drinking Water facilities	4%	96%	0%
Schooling	10%	90%	0%
Health Services	26%	73%	1%
<b>Access to Education facilities</b>			
Primary Schools	6%	93%	0%
Secondary Schools	11%	89%	0%
Higher Secondary Schools	9%	91%	1%
Graduation College	3%	97%	0%
Technical Colleges	2%	98%	0%
Polytechnic College for Women	8%	92%	0%

The villages/small towns are growing and accessibility has significantly increased for infrastructure, education and better lifestyles. While more than 50% of the respondents reported no significant changes across the different parameters set, there are respondents who reported increased access to infrastructural facilities, education and better lifestyle. About one third of the migrants reported that their native villages/towns now have better connectivity to road networks. There has been a significant rise in possession of mobile phones which has brought a sea change in the way people communicate. 7 in every 10 migrants reported an increase of access for the same. However, there has hardly been any improvement in drinking water facilities, railway connectivity, and schooling. 25-27% of the respondents reported increased accessibility to electricity, telephone services, TVs and other white goods and possession of personal vehicles in their native places.

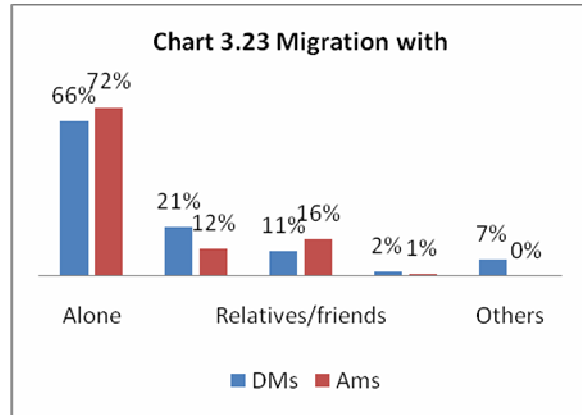
### 3.3.3 Migrating Decisions

Decision to migrate is generally personal with family and /or friends being much less instrumental in

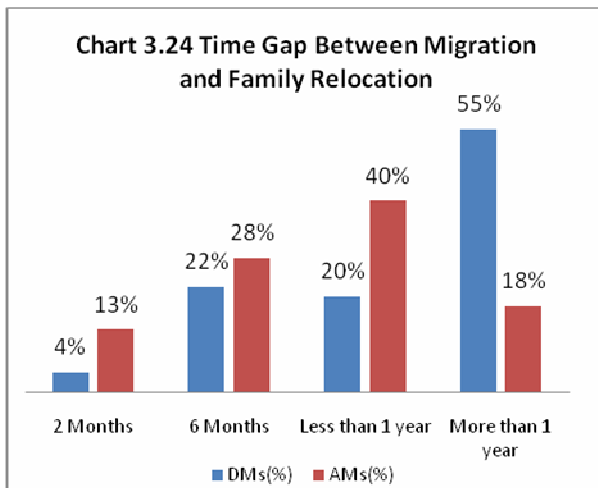


such decisions. Nearly 70% migrants (both DMs and AMs) migrate alone; the rest are either accompanied by the family or friends and relatives or fellow workers. Migrating with the family is twice as common among the DMs as AMs, possibly because the entire family may be in distress. Such migrants reportedly preferred Faridabad (20%) over Delhi (14%). Moving with friends, more common among AMs, is mostly because of the comfort and safety value that moving as a group offers and preferred destination is Delhi (16%) as against Faridabad (10%).

Majority of migrants continue to reside alone much after they have migrated. More AMs live by themselves as compared with DMs. Since there is more pull than push in AM migration and families back home are unlikely to be in distress, as also AMs are more likely to value their independence, many more continue to live independently.

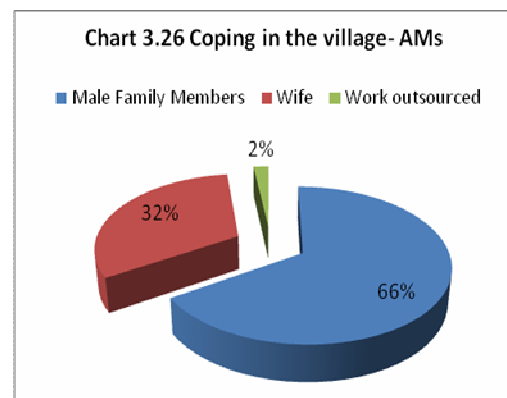
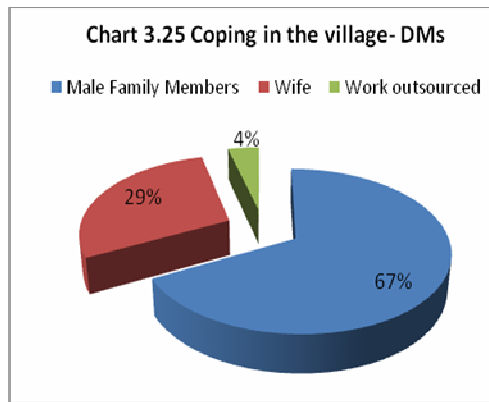


For those whose families joined them later, nearly 80% AMs were able to move their families to the new city within 1 year of migration, whereas over half the DMs could bring their families in after more than a year of being in the city. Better skill and earning opportunities of migrants may be responsible for their being able to shift in their families sooner than later.



Similarly, about 8 out of 10 migrants to Faridabad could move their families with a time span of one year whereas, only 5 such could do the same in Delhi. The migrants in Delhi needed more time to settle down and cope with the city; earn adequately to support family members; organise a place to stay and so on.

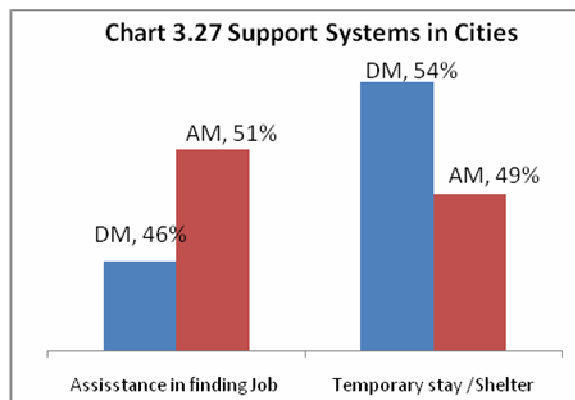
### 3.3.4 Coping in the Village



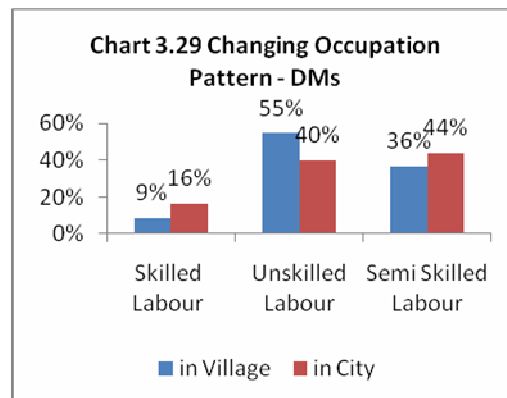
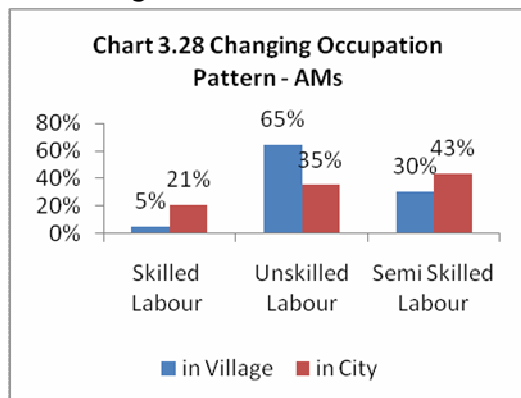
Older/remaining men in the family generally continue to /take over the management of farms/other livelihoods back home, both distress and aspiration based migrants. Interestingly nearly one third women were reported to have taken over the management of family livelihoods after the men migrated. Migration, aspiration or distress based increase the work burden of women who stay back. Whereas this could be empowering for aspirational families, with greater share in decision making, it may be very challenging for distress based families.

### 3.3.5 Support Systems in Cities

Four in every five migrants, both DMs and AMs had friends or relatives in Delhi or Faridabad; seen as safety nets. Assistance is extended both in finding a job, temporary shelter during the transition period and/or finding a place to stay. Across the cities; 81% of the migrants to Delhi had friends or relatives in the city as against 74% in Faridabad.



### 3.4 Occupation and Income – Post Migration



## Migrants have Employment

A significant change in the occupation profile of migrants is observed. From just 13% among DMs

**Table 43 Occupation Characteristics in the New City**

	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Employed	86%	100%	97%	91%
Self Employed	14%	0%	3%	9%

employed prior to migration, nearly 86% were employed after migration. Percentage of DMs who were self-employed dropped from 19% to 14%. Regular employment reduces vulnerability of families by assuring incomes and enabling people to invest in improving their human, social and economic capital; i.e. send children to schools, invest

in better housing, etc.

Among the AMs, employment rates went up from 41% to 100%. None of the AMs were self-employed. This is interesting that employment as an option is preferred by most people because of the less risk involved in self-employment. Some among the AMs may eventually move on to establish enterprises, having generated the required capital investments for the same.

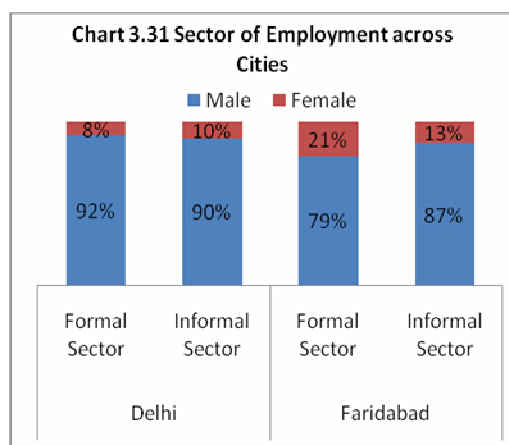
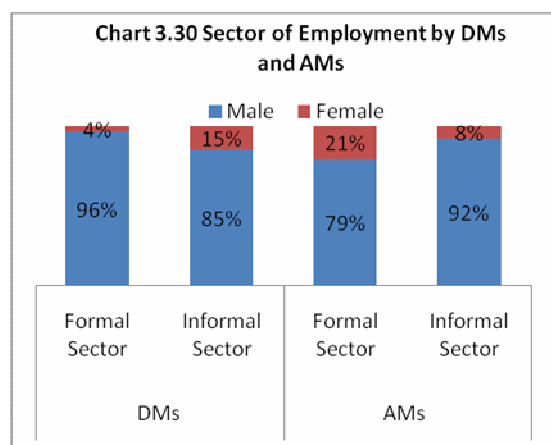
Migrants, especially AMs, tend to acquire new skills after moving to cities in response to new livelihood options and to make them fit for the tough/fast city life. This is evident from the increase in proportion of migrants in the semi-skilled category from 30% to 43%. A corresponding drop in the unskilled labour category is evident among the AMs (65% to 35%); widening the gap between the AMs and DMs vis-à-vis skills.

It is difficult to determine the predominant occupation trend among migrants because they were mostly purposely selected. Employment is mostly in the informal sector, more so for the DMs. Between 5% and 16% DMs and AMs respectively, are employed in the formal sector (formal sector includes employment in private sector as accountants, clerks, peons etc., Factory workers as lineman, supervisor etc., railway employee, health clinics as ward boys, nurses; and painters). Delhi employs more migrants (93%) in the informal sector than in Faridabad (62%). Thus satellite cities like Faridabad offers higher employability (38%) in Formal Sectors.

**Table 44 Sector of Employment**

	DMs (%)	AMs (%)
Informal Sector	95%	84%
Formal Sector	5%	16%

Among those employed in informal sector and formal sector, majority are males. Among DMs, more



females work in the informal sector whereas; among AMs it is the opposite. Delhi employs more males in the informal sector.

**Table 45 Occupation by Gender**

Occupation Typologies	DMs		AMs		Delhi		Faridabad	
	Male	Female	Male	Female	Male	Female	Male	Female
Taxi driver/Travel agent	1%	0%	15%	13%	9%	15%	8%	0%
BRT	0%	0%	6%	0%	6%	0%	0%	0%
Commercial	39%	38%	23%	19%	24%	42%	37%	13%
Industrial	7%	4%	4%	0%	5%	4%	6%	0%
Guard	1%	0%	11%	0%	8%	0%	4%	0%
Construction	47%	50%	16%	25%	32%	15%	30%	53%
Nurse/Ward boy	0%	0%	5%	44%	2%	19%	3%	30%
Domestic help	0%	8%	0%	0%	0%	4%	0%	3%
Work in Dhaba	5%	0%	1%	0%	2%	0%	4%	0%
Call Centre	0%	0%	19%	0%	12%	0%	8%	0%

Most females among DMs are employed in the construction industry;

Among AMs the dominant profession for female is nursing. In Delhi however, most of female migrants end up working in the commercial centres or as nurses. In Faridabad, the dominant occupation being Construction Industry followed by Nursing. Rest of the occupation categories are dominated by Male.

**3.4.1 Employment is Remunerative but Less Secure**

The average income earned in Delhi is Rs. 5009 less than that earned in Faridabad Rs. 5540.

The occupations like taxi driver/travel agent, Bus Rapid Transit/workers in government projects, construction workers, nurses, domestic helps, workers at Dhaba on highways and in call centres earn more for the Delhi migrants with average incomes being higher than those who have migrated to

Faridabad. However, workers in commercial and industrial areas and guards earn more in Faridabad than in Delhi.

**Table 46 Income Earned by Migrants in the City**

	Delhi (in Rs.)	Faridabad (in Rs.)
Average Income	5009	5540
Modal Income	3000	4000
Maximum Income (x)	45000	50000

**Table 47 Nature of Employment**

	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Regular	33%	35%	16%	54%
Contractual	67%	65%	84%	46%

Interestingly, for both the groups, the employment is entirely in the private sector. This is in sync with the national growth pattern, where government as employer has begun to backslide and is also less attractive because of low remunerations; the latter being

compensation enough for the insecurity.

Although both the DMs and AMs are in regular employment, the nature of this is contractual and for the duration of the project. This is in contrast to nearly 61% overall being daily wage workers prior to migration. Nearly all the migrants (94%) do not get leave salary or any other form of insurance as they are contractual employees. There is thus less long-term security/protection but increased remuneration in the short term from migration. Future migration studies could estimate the period required for full assimilation and for moving from insecure to secure employment.

Among the employed DMs bulk are absorbed in the informal sector; one-third more than the AMs;

**Table 48 Pattern of Incomes Earned**

	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Daily Base	69%	53%	71%	50%
Regular Base	31%	47%	29%	50%

contributing to their instability and elongated distress span. Even though they were in the informal sector, one third did get regular wage. Incidence of daily wagers was high, both among the AMs and DMs. This was possibly due to the nature of the sample; where even DMs came from low income professions. However, it was significantly higher among DMs as compared to the AMs.

### 3.4.2 Micro enterprises

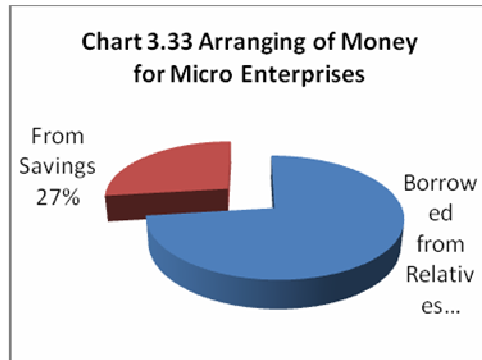
Self employment is not very common, although about 14% DMs have set these up once they come to the cities. Vegetable vending is the most common form of self-enterprise. An equal number also set up food stalls or dhabas, become hawkers or set up small provision stores. A very small percentage who have the skill, set up tailor shops.

**Table 49 Micro Enterprises by Migrants**

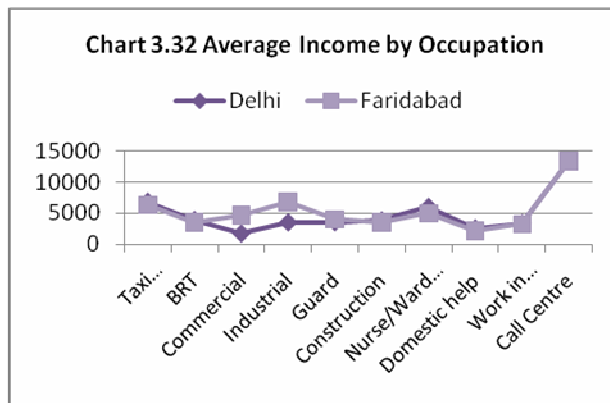
Nature of the Micro Enterprises	%
Dhaba (food stalls)	20
Hawkers	20
Shops/ Provision stores	21
Tailor	5
Vegetable vending	36

employment.

As compared with Delhi, more migrants engage themselves in self enterprises in Faridabad. The later being a small city it is possibly easier to establish and sustain own enterprises rather than in Delhi.



Among the AMs none move for self entrepreneurship when they migrate to Delhi or Faridabad. This implies that AMs are more risk averse, have better skills and so feel more comfortable in regular



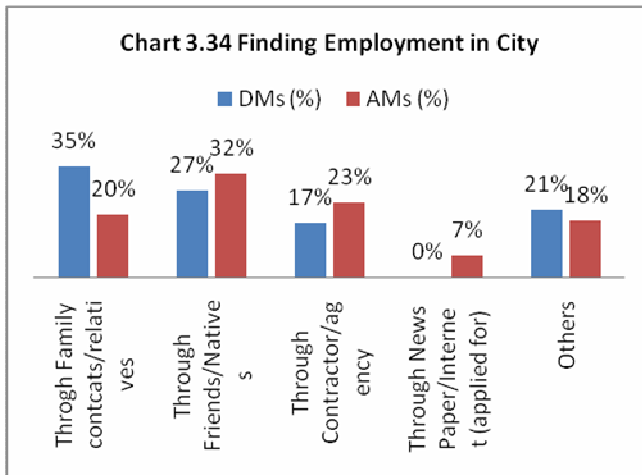
Although these are micro enterprises and do not need a lot of capitalization, they still need money. This money is borrowed from relatives or drawn from the family savings.

Managing the self-enterprise is not an easy task for some. For running these legitimately, one needs licences from the Municipal Corporation, without which there could be police harassment as reported by nearly 21% of entrepreneurs.

### 3.4.3 Finding Employment in New City

As expected, bulk of DMs did not have a job when they first entered the new city. Surprisingly, nearly the same percentage of AMs also had no jobs in their first city. However, AMs secured themselves as they migrated to newer cities and did not take any new risks; especially the 4<sup>th</sup> time migrants (people who had moved four cities since they first migrated) where all 100 percent had ensured jobs. In contrast, DMs remained relatively unstable as they moved cities indicative of a much longer period of distress. There could be a chicken and egg argument here; distressed migrants move into unstable jobs due to lack of skills or out of sheer desperation and unstable jobs means that it takes that much longer for the poor to build the skills that would help them to extricate themselves from the vicious cycle of poverty.

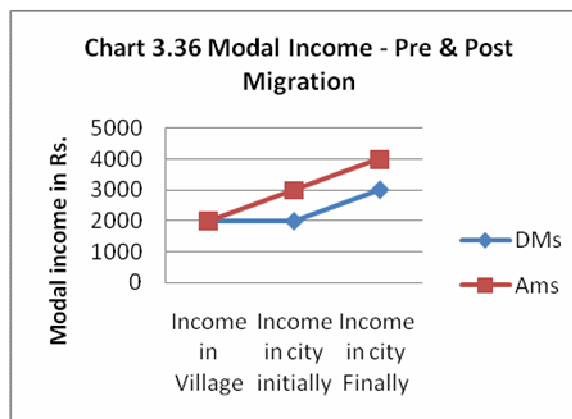
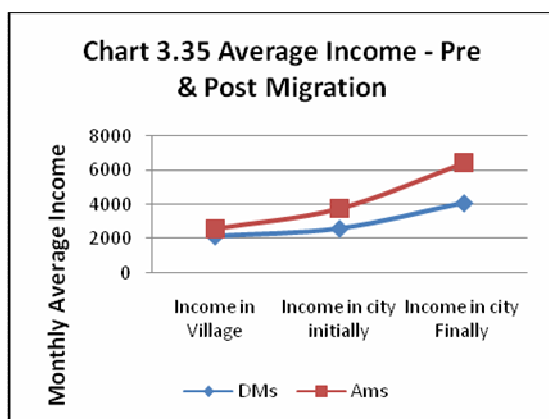
While DMs were much more dependent on families, neighbours or friends for their job introductions (62%), AMs also used contractors, employment agencies and newspapers/internet (30%) to find their first employments.



21% of first time migrants in Faridabad move in the city with job as against 18% in Delhi. Half of the 4<sup>th</sup> time migrants moving in Delhi move with a job whereas same proportion of the 2<sup>nd</sup> and 3<sup>rd</sup> time migrants moves in Faridabad with assured jobs.



### 3.5 Rising Incomes in Cities



Average income of migrants increases significantly once they come to the urban areas. For the DMs the average income was found to be Rs.4048 and for AMs, Rs.6452. This reflects an average increase 90% for DMs and 154% for AMs suggesting that moving to the cities was a good decision for the families concerned.

Mode, another measure of central tendency, was used to assess the largest numbers that around a particular income level. The modal income for DMs was Rs. 3000; 50% higher than their pre migration incomes. The modal income for AMs was Rs. 4000, twice their pre migration earnings.

**Table 50 Frequency Distribution table for Income**

Classes	In Village/Native Places		At arrival		Present incomes	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Is less & equal to 2500	77%	71%	76%	38%	34%	5%
2501-5000	20%	25%	21%	43%	51%	54%
5001-7500	2%	2%	2%	9%	9%	17%
7501-10000	2%	1%	0%	8%	4%	8%
more than 1000	0%	2%	0%	2%	2%	17%

Interestingly, the incomes rise immediately after migration. More than half the migrants (57%)

**Table 51 Income Earned by Migrants in New Cities**

	Delhi		Faridabad	
	Initially (in Rs.)	Finally (in Rs.)	Initially (in Rs.)	Finally (in Rs.)
Average Income	2749	5009	3579	5540
Modal Income	3000	3000	3000	4000
Maximum Income (x)	21500	45000	12000	50000
Minimum Income (y)	500	900	1000	800
Range of Income <sup>8</sup> (x-y)	21000	44100	11000	49200

reported incomes less than Rs. 2500 per month when they first move into a new city; with the percentage dropping significantly to 19%, as the duration of their stay increases and they are more aware of the prevailing rates for their skills and they are able to explore the various

<sup>8</sup> Range is a measure of Dispersion which is defined as (Max value – Min value) in any series of data

income opportunities available.

Starting earning for AMs is higher than for DMs. Bulk of DMs (51%) and AMS (54%) earned an average Rs2500 (mode for DMs) and Rs5000 (mode for AMs) a month in the early years. Once settled in, the incomes begin to grow significantly, in particular for AMs, 17% of who begin to earn more than Rs10000 a month.

**i. Test of significance: Average income pre and post migration do not vary significantly**

$H_0$ : the average income pre and post migration do not vary significantly ( $\mu_1=\mu_2$ )

Against an alternative hypothesis

$H_1$ : the average income pre and post migration do vary significantly ( $\mu_1\neq\mu_2$ )

Applying t statistics at degree of freedom 1390 and level of significance 5%

Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05, Two\ tailed}$ )
19.07	1.96

Thus,  $t_{cal} > t_{\infty, 0.05}$ ; the nul hypothesis  $H_0: \mu_1= \mu_2$  is rejected hence the pre-migration average income differs significantly from the post migration average income.

Average incomes earned in Delhi were higher than in Faridabad, although modal values showed that more people in Faridabad earned in the range of Rs. 4000 as compared with those in Delhi at Rs. 3000. This corresponds with the earlier findings about more literate and skilled workers in Faridabad because of its industrial nature and demand for higher order skills.

**ii. Test of significance: Average income earned by a migrant in Delhi do not vary significantly**

$H_0$ : the average income earned by a migrant in Delhi do not vary significantly ( $\mu_1=\mu_2$ ) from those in Faridabad

Against an alternative hypothesis

$H_1$ : the average earned by a migrant in Delhi do vary significantly ( $\mu_1\neq\mu_2$ ) from those in Faridabad

Applying t statistics at degree of freedom 960 and level of significance 5%

Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05, Two\ tailed}$ )
2.01	1.96

Thus,  $t_{cal} > t_{\infty, 0.05}$ ; the null hypothesis  $H_0: \mu_1= \mu_2$  is rejected hence the average income earned by migrants in Delhi differs significantly from those in Faridabad.

Even the minimum and maximum incomes at start for Faridabad are higher vis-à-vis Delhi. Interestingly the minimum income now in Delhi is higher than Faridabad, although only marginally.

Gap between the least earning and the highest earning migrants in the two cities has an interesting finding. In Delhi the gap has increased by more than double, whereas for Faridabad, the incomes have quadrupled. The rising incomes are indicative of the opportunities that urban areas provide to migrants.

**Table 52 Foot printing Migration and Rising Average Income**

	DMs (in Rs.)		AMs (in Rs.)		Delhi (in Rs.)		Faridabad (in Rs.)	
	Income in city	% increase	Income in city	% increase	Income in city	% increase	Income in city	% increase
1st time Migrants	4446	117%	6904	174%	5115	135%	4427	84%
2 <sup>nd</sup> time Migrants	5458	127%	6686	155%	6496	167%	5139	105%
3rd time Migrants	8090	144%	8700	226%	8811	185%	4771	114%
4th Time Migrants	4520	154%	0	0	4660	273%	6688	327%

Rise in earnings for both DMs and AMs continue to move north, even as the migrants shift jobs and move from one city to another. As migrants shift from base from one city to the other, the average increases in all categories of occupations and to whatever city they migrate to. This is because they now have the experience, additional skills and awareness of the wage structure within their chosen professions.

**Table 53 Average Income by Gender**

	DMs (in Rs.)		AMs (in Rs.)		Delhi (in Rs.)		Faridabad (in Rs.)	
	Male	Female	Male	Female	Male	Female	Male	Female
Finally	5046	6792	7930	7803	6292	6896	6808	7780
At village	2188	1674	2479	3204	2191	2309	3697	2264
% increase	131%	306%	220%	144%	187%	199%	84%	244%

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reportedly earned more than their male counterparts with the % rise in income from the native places standing at 306% and 131% respectively. Male aspirants, however, earned more on an average than females. Across the cities, females recorded higher rate of growth as against males with Faridabad recording 244% increase against Delhi at 199%.

**iii. Test of significance: Average incomes for women and men do not differ significantly**

$H_0$ : the average income earned by a male migrant do not vary significantly ( $\mu_1=\mu_2$ ) from their female counterparts

Against an alternative hypothesis

$H_1$ : the average earned by a male migrant do vary significantly ( $\mu_1\neq\mu_2$ ) from their female counterparts

Applying t statistics at degree of freedom 400 and level of significance 5%

Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05, Two tailed}$ )
0.13	1.96

Thus,  $t_{cal} < t_{\infty, 0.05}$ ; the null hypothesis  $H_0: \mu_1 = \mu_2$  is accepted hence the average income earned by male migrants to not differ significantly from the female migrants.

**iv. Test of significance: Average income earned by male migrants in Delhi do not differ significantly from female migrants**

$H_0$ : the average income earned by a male migrant in Delhi do not vary significantly ( $\mu_1 = \mu_2$ ) from their female counterparts

Against an alternative hypothesis

$H_1$ : the average earned by a male migrant in Delhi do vary significantly ( $\mu_1 \neq \mu_2$ ) from their female counterparts

Applying t statistics at degree of freedom 140 and level of significance 5%

Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05}$ , Two tailed)
1.51	1.96

Thus,  $t_{cal} < t_{\infty, 0.05}$ ; the null hypothesis  $H_0: \mu_1 = \mu_2$  is accepted hence the average income earned by male migrants in Delhi do not differ significantly from the female migrants.

**v. Test of significance: Average incomes earned by male migrants in Faridabad do not differ significantly from female migrants**

$H_0$ : the average income earned by a male migrant in Faridabad do not vary significantly ( $\mu_1 = \mu_2$ ) from their female counterparts

Against an alternative hypothesis

$H_1$ : the average earned by a male migrant in Faridabad do vary significantly ( $\mu_1 \neq \mu_2$ ) from their female counterparts

Applying t statistics at degree of freedom 290 and level of significance 5%

Modulus value of calculated t statistic ( $t_{cal}$ )	Tabulated value of t statistic ( $t_{\infty, 0.05}$ , Two tailed)
1.08	1.96

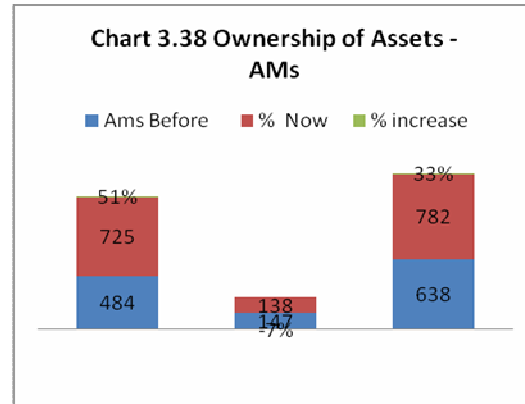
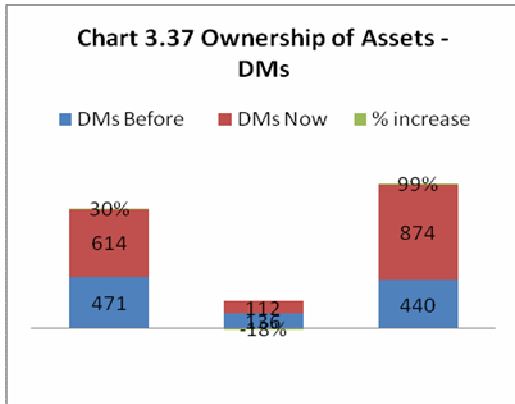
Thus,  $t_{cal} < t_{\infty, 0.05}$ ; the null hypothesis  $H_0: \mu_1 = \mu_2$  is accepted hence the average income earned by male migrants in Faridabad do not differ significantly from the female migrants.

**Table 54 Income Distribution of Rural-Urban and Urban-Urban Migration**

	Rural – Urban	Urban – Urban	Delhi		Faridabad	
			Rural - Urban	Urban – Urban	Rural - Urban	Urban – Urban
Average Income (in Rs.)	4569	7933	4060	7814	5023	7893
Modal Income (in Rs.)	4000	7500	4000	6500	5500	7000

The average income earned by urban to urban migrants at Rs. 7933 is higher than incomes earned by rural to urban ones at Rs. 4569. This pattern remains same across the city as well with Faridabad being the more remunerative city to migrate.

### 3.6 Changing Asset Ownership

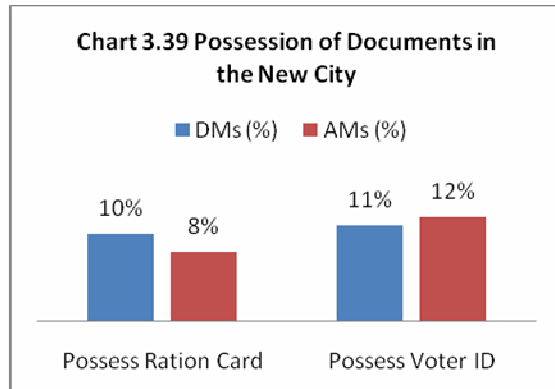


Ownership of both economic and social/luxury assets among migrants recorded an increase after migration. More specifically for the DMs, the percentage increase in economic and Social/Luxury assets was 30% and 99% respectively whereas that of the AMs is estimated to be 51% and 33%. This difference may be the result of a lower starting point for the DMs versus AMs. However, for both DMs and AMs, ownership of household assets has declined by 18% and 7% respectively and is because of the high real estate values in these cities, that make land and housing unaffordable and out of reach, even with significant increases in incomes.

Ownership also varies across the cities surveyed; migrants in Delhi reported higher spending on social and luxury assets (59%) than in Faridabad (39%). About half the total migrants to Faridabad invested mostly in economic assets as against just one-third in Delhi. This could again be attributed to the nature of the city economy and the higher assault on people from advertising of white goods etc. raising aspirations among all types of migrant families.

### 3.7 Assimilation and Acculturation

A key strategy for migrants is to get permanently assimilated in the city. This happens through access to housing and other means of identification such as ration cards, voter ID cards and other



documentation that established their presence in the city and also increase their entitlements to food and other subsidies, government programmes and eventually housing (for the slum dwellers). However, nearly 90% migrants were unable to get any ID cards over the 3 to 5 years, of their migration, indicative of their 'foreign' status in these cities.

Of the few who could access these documents, these were obtained fairly quickly. About 60% DMs and 48% AMs could get their ration card and voter ID card

within 2 months of relocation. In case of AMs, majority (73%) could access these only within a one year time span. Landlords have been chiefly instrumental in case of DMS for obtaining the Voter ID and Ration Cards (60%). Majority of AMs acquire these through legal procedure (89%).

	Ration Card	Voter ID Card
Delhi	12%	41%
Faridabad	88%	52%

### 3.8 Living Conditions in the City

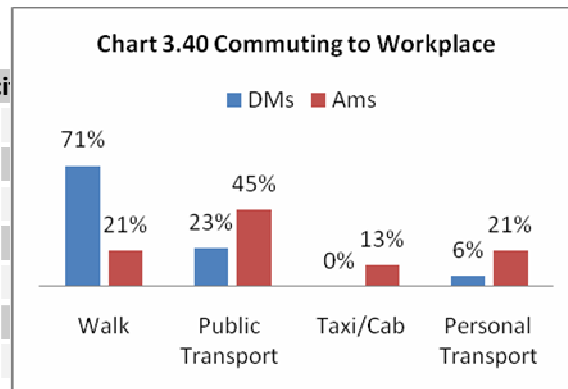
	DMs (%)	AMs (%)	Delhi	Faridabad
With relatives	7%	10%	9%	15%
On the pavement	5%	0%	1%	2%
Rental accommodation	64%	38%	59%	40%
Shared rental Accommodation	23%	52%	31%	43%

About 59% of all migrants live in rental accommodation in Delhi as against 40% in Faridabad. Majority 58% in Faridabad either live with relatives or live in a shared accommodation. 1% of migrants to Delhi live on road side as opposed to 2 in Faridabad.

**Mobility** AMs clearly use faster means of transportation; both self-owned vehicles (motorcycles, cycles) and those provided by the hiring company (taxis). The bulk of DMs walk to work; for two reasons: low affordability and because their housing in slums is generally close to the work sites. The pattern holds true even across the cities; almost similar proportion of people walk to their work places in Delhi (32%) and Faridabad (36%). More people tend to own their personal means of transport in Delhi (13%) than in Faridabad (7%).

### Access to Social Services

	DMs	AMs
Primary School	83%	87%
High School	79%	85%
Colleges	55%	65%
Professional Institutes	47%	60%
Government Hospital	83%	84%
Private Hospital	85%	87%



Health Care Centre	62%	72%	12%	9%	Even though half the migrants do not have identity papers, they do have access to social services in the city; schools and higher education institutions, government hospitals and health care centres. Colleges and professional institutes are accessed better by migrants in Delhi compared to Faridabad.
Dispensaries	69%	76%	13%	10%	

Children of migrant families have also found admission in the government (mostly) and private schools (some) in the city. More children in Delhi go to private schools (11%) and almost all the migrants in Faridabad send their children to Govt. Schools (94%). Nearly 13% DMs were also able to avail the benefits of the Ladli scheme for girl children and 6% to pensions.

### 3.9 Affiliation and Support to Family at Home

Table 58 Remittances and Savings				
Remittances	DMs	AMs	Delhi	Faridabad
No. of Respondents who send money back Home	70%	74%	52%	51%
Average income sent back (in Rs.)	1954	2162	2116	1981
Savings				
	DMs		AMs	
No. of Respondents who save money	90%		93%	
	Delhi	Faridabad	Delhi	Faridabad
Average savings per month (in Rs.)	551	1620	2840	1414

Most distress migrants move to the cities so that they can earn, save up and remit money back home to help the family recover from its hardship. Nearly 90% reported saving money and 70% indicated that they remitted it home. Three-fourth of the aspirants also reported remittances and about 93% reported savings. The average remittance by DMs is lower at Rs. 1953 than the AMs at Rs. 2162. However, across city, the migrants to Delhi are able to remit back home more (average Rs. 2116) than those in Faridabad (average Rs. 1980). However, the saving pattern is just the opposite across the cities; average savings among DMs in Faridabad is more (Rs. 1619) than in Delhi (Rs. 551); on the contrary AMs in Delhi saved more (Rs.2840) per month than those in Faridabad (Rs. 1414). More AMs (13%) are reported to invest their savings as against only 6% of DMs.

Table 59 How do you send money back home				
	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Through Bank	14%	27%	13%	29%
Through Draft	10%	0%	10%	0%
Through Post Office	29%	52%	40%	41%
By Courier	6%	0%	5%	1%
Through a person from native Place	36%	19%	29%	25%
By the migrant himself	5%	2%	4%	4%

DMs spent a little less on routine expenses but more on housing, asset creation, debt repayment and obligatory social responsibilities; nearly double than AMs. AMs on the other hand invested more in education of siblings, realizing the value of education in economic progress. DMs are also much less able to make any investments for making their savings grow, mostly because these instruments are less available to them and also because there is less available after remittances for such

investment. This means that DMs will have a much longer curve for exiting out of their vulnerability. DMs are much more dependent on relatives and fellow villagers for sending money back home, followed by post offices as compared to AMs who use the latter option along with banks as a much better means of money transfer. Again, this is possibly because banks are remote and unfriendly institutions and overwhelming for the new migrants from villages.

**Table 60 Visit to Home – Occasions and Frequency of Visit**

Occasions	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Festivals	39%	47%	40%	46%
Marriages/Emergencies	35%	26%	31%	30%
Illness of family member	26%	27%	29%	24%
Frequency of Visit	DMs (%)	AMs (%)	Delhi (%)	Faridabad (%)
Once a year	33%	47%	32%	48%
Seasonally(work at farm)	7%	0%	0%	8%
Sometimes	10%	0%	0%	12%
Not Fixed	50%	53%	46%	48%

Most also visit homes especially during festivals, marriages, emergencies, illnesses in the family, etc. Some among the AMs also go home during the seasonal farm work when labour is needed.

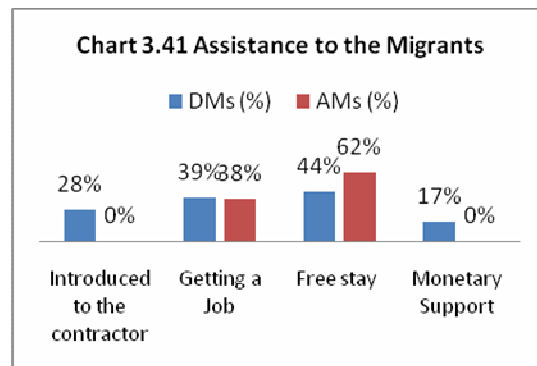
### 3.10 Enabling others to Migrate

Both DMs and AMs have also assisted their friends and relatives to migrate to the city; the proportion being significantly higher at 35% for DMs than AMs at 17%. They helped them with free stay (more among the AMs), to find jobs in the city and introduction to the contractor (only among the DMs). DMs also provided monetary support to these people.

### 3.11 Human and Social Capital Creation: Perceptions of Migrants

**Table 61 Human and Social Capital Creation: Perceptions of Migrants**

	DMs (%)		AMs (%)	
	Delhi	Faridabad	Delhi	Faridabad



More Incomes	33%	27%	55%	43%
More educated	10%	15%	8%	17%



Table 61 Human and Social Capital Creation: Perceptions of Migrants				
	DMs (%)		AMs (%)	
More assets	10%	16%	10%	14%
Better housing	6%	17%	12%	9%
Better Dressed	29%	11%	15%	7%
Children are better educated	7%	9%	5%	10%
Others	5%	5%	1%	0%

Nearly half the AMs felt that they had better incomes since they came to the city. Some also indicated that they had more assets and better housing than before. Among the DMs, 20% felt that they were better dressed and their children/they themselves had better education. A small percentage also felt that they were now more articulate and urbane.

Table 62 Rating of Infrastructural and Social Facilities in New city vis a vis Native Places/Villages						
	Delhi			Faridabad		
	Good/very good/excellent	Average	Poor	Good/very good/excellent	Average	Poor
Infrastructure	85%	10%	5%	60%	31%	9%
Schooling facilities	87%	9%	4%	70%	25%	5%
Health facilities	90%	7%	4%	64%	23%	13%
Other facilities	78%	8%	14%	62%	31%	7%

Migrants find infrastructural and social facilities in the range of Good to Excellent when compared with their native places/villages. Of the two cities, migrants rated Delhi much higher than that of Faridabad. Health and other facilities are also rated much higher for Delhi at 90% and 78% against 64% and 62% for Faridabad.

Table 63 Rating city to pursue aspiration		
	Delhi	Faridabad
Excellent	42%	21%
Very Good	33%	13%
Good	24%	33%
Poor	0%	7%
Average	0%	25%

Table 64 Rating city to pursue aspiration		
	DMs (%)	AMs (%)
Excellent	16%	31%
Very Good	22%	23%
Good	40%	28%
Poor	6%	4%
Average	15%	13%

One-third of the AMs feel that the city they have migrated to is

excellent to pursue their aspirations, although, Delhi is felt more suitable for this purpose over Faridabad. About 60% of the distressed rates the city in the very good to good category.

66% DMs consider their migration as temporary and look forward to return back to their native place after earning enough money to sustain themselves. Even half of the AMs consider migration as a temporary phase and wish to settle down in their native places.

Table 65 Wants to Get back to Native Place		
	DMs (%)	AMs (%)
yes	66%	52%
no	34%	48%

## Chapter 4: Factors Influencing Migrating Decisions and Changing Trends

A broad range of factors influence migration and migrating decisions. In the present study, four independent variables were added to the list of variables commonly known to influence migration; change in climate with impact on agriculture productivity, disasters, rise in food prices due to recent inflation and urban aspirations due to better skills.

Climate change is slow and occurs over time, the full impact of which is often delayed and realised by families after several years of poor production. The decision to migrate in this case is often pre-meditated, fully thought out and could be permanent. Disasters on the other hand are unexpected, families are unprepared for the devastation and the effect /asset loss can be enormous. Decisions to migrate in such events are generally rushed and may be temporary and reversible as situation improves in the home village. Rise in food-prices or inflation in the present context was attributable to the sudden spike in global oil prices followed by a rise in household expenditure and deepening of poverty. Price rise conditions could be temporary or permanent depending on their impact on the national economy and may result in planned migration, either brief or enduring.

This part of the analysis is aimed at identifying factors that significantly contribute to migrating decisions.

**Table 66 Climate Change: Pre meditated – Permanent**

	Chi-square Value	Significance
Choice of City	26.507 at 1 degrees of freedom	1% level of significance
Income earned in home state	12.076 at 3 degrees of freedom	1% level of significance
Asset Ownership at Home state	1.215 at 2 degrees of freedom	statistically non-significant
Home State	0.583 at 3 degrees of freedom	statistically non-significant
<b>Impact of Migration</b>		
Asset Ownership at City	0.833 at 1 degrees of freedom	statistically non-significant
Income earned in city	5.802 at 4 degrees of freedom	statistically non-significant

In situations where migration may be influenced by climate

changes and productivity losses, the preference of migrants is to move to larger cities which can absorb low skilled migrants (largely involved in agriculture)

- Climate change is significantly associated with the choice of city the migrants make. The lack of income earning opportunities in their native places contributes significantly to the migration decision of migrants who reported climate change.
- However, the income earning opportunities in the city they migrate to, the asset ownership at home or at city and the state from which they migrate do not influence the decision of migration if taken due to climate change.

<b>Table 67 Rise in Prices: Sudden but Temporary Impact</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Choice of City	192.511 at 2 degrees of freedom	1% level of significance
Income earned in home state	4.855 at 3 degrees of freedom	statistically non-significant
Asset Ownership at Home state	1.233 at 4 degrees of freedom	statistically non-significant
Home State	18.903 at 6 degrees of freedom	1% level of significance
<b>Impact of Migration Decision</b>		
Income earned in city	15.013 at 8 degrees of freedom	10% level of significance
Asset Ownership at City	0.524 at 2 degrees of freedom	statistically non-significant

Rise in food prices is expected to trigger an economic shock in low-income families, pushing them below the poverty line, especially since they lack any savings to cushion the shock. A non parametric test of significance was used to understand migrating decisions of people affected by price rise. While such migrants carefully selected the cities they moved to (moving generally to larger cities where they are likely to get better income earning opportunities) their choices were less influenced by the level of incomes they earned at home or asset ownership. Price rise being a more pervasive phenomena; is likely to affect a much larger group. Families with higher incomes and high expenditures will be equally affected by the changing prices.

<b>Table 68 Disaster: Unexpected Crisis</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Choice of City	18.205 at 1 degrees of freedom	1% level of significance
Home State	5.035 at 3 degrees of freedom	statistically non-significant
Income earned in home state	6.019 at 3 degrees of freedom	statistically non-significant
Asset Ownership at Home state	5.997 at 2 degrees of freedom	10% level of significance
<b>Impact of Migration Decision</b>		
Income earned in city	7.22 at 4 degrees of freedom	statistically non-significant
Asset Ownership at City	5.243 at 1 degrees of freedom	significant at 5% level of significance

Disaster affected migrants need to make quick decision to move to a city. Disaster significantly affects this choice. Their choice is also significantly influenced by their pre-disaster asset ownership but not by their level of income. However, this choice has very little impact on the incomes earned after migration.

<b>Table 69 Factors Influencing Choice of City</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Age	2.954 at 4 degrees of freedom	statistically non-significant
Education	17.849 at 1 degrees of freedom	1% level of significance
Income at Village	5.379 at 4 degrees of freedom	statistically non-significant
Land Ownership	6.242 at 1 degrees of freedom	5% level of significance

<b>Table 69 Factors Influencing Choice of City</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Skills	9.755 at 1 degrees of freedom	1% level of significance
Home State	6.758 at 1 degrees of freedom	1% level of significance
Cause of Migration	82.471 at 15 degrees of freedom	1% level of significance
<b>Impact of Migration Decision</b>		
Income in City	27.713 at 4 degrees of freedom	1% level of significance

City of migration or choice of Delhi over Faridabad was found to be significantly influenced by literacy levels; the higher the literacy level of the migrants the more chances of the migrant moving to the larger city; Delhi. Similarly, higher pre-migration incomes, asset ownership, expectation of earning better incomes and better skill sets possessed also determined the choice of city in favour of the metropolis. The choice had very little to do with the age of the migrant or pre-migration income.

<b>Table 70 Home State of Migrants</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Education	15.405 at 2 degrees of freedom	1% level of significance
Skill	13.141 at 2 degrees of freedom	1% level of significance
Destination	6.758 at 2 degrees of freedom	5% level of significance
<b>Impact of Migration Decision</b>		
Income in City	47.432 8 degrees of freedom	1% level of significance

The home state of migrants is both a proxy of their relative socio economic conditions and impacts the decisions and outcomes of migration. Migrants from Bihar and UP have a significant preference for Delhi whereas those from Haryana opt for Faridabad.

As expected, Bihar sends significantly more illiterate and unskilled migrants as compared to UP and least by Haryana. Incomes earned by these migrants post migration are in sync with this relationship; migrants from Bihar earning the least followed by UP and Haryana.

<b>Table 71 Profiling the Aspirant</b>		
	<b>Chi-square Value</b>	<b>Significance</b>
Age	27.75 at 4 degrees of freedom	1% level of significance
Education	13.847 at 1 degrees of freedom	1% level of significance
Income at Village	8.860 at 4 degrees of freedom	10% level of significance
Land Ownership	13.364 at 1 degrees of freedom	1% level of significance
Skill	152.423 at 1 degrees of freedom	1% level of significance
Home State	10.874 at 2 degrees of freedom	1% level of significance
Destination	0.012 at 1 degrees of freedom	statistically non significant

Table 71 Profiling the Aspirant		
	Chi-square Value	Significance
Impact of Migration Decision		
Income in City	152.423 at 4 degrees of freedom significant	1% level of significance

Severable variables determine whether a migrant will be pulled to the city. An aspirant migrant is generally not too young or too old, has acquired a certain level of education and professional skill prior to being lured to the city, has a reasonable income and owns land in the home village. A distressed migrant generally has lower education, skills and earns less in the village and in turn earns less in the new city as well. However, the destination city that you choose is not significantly associated with your distress or aspiration.

Table 72 Employment is more remunerative and less secure						
Pre Migration Income for DMs	Post Migration Income for DMs					
	< Rs. 2500	2501-5000	Rs. 5001 – Rs. 7500	Rs. 7501 – Rs. 10000	> Rs. 10000	
< Rs. 2500	31%	54%	10%	3%	2%	
Rs. 2501 – Rs. 5000	23%	68%	7%	2%	0%	
Rs. 5001 – Rs. 7500	50%	0%	25%	25%	0%	
Rs. 7501 – Rs. 10000	20%	20%	20%	40%	0%	
> Rs. 10000	0%	0%	0%	0%	0%	

Post Migration Income for AMs						
Pre Migration Income for AMs	< Rs. 2500	2501-5000	Rs. 5001 – Rs. 7500	Rs. 7501 – Rs. 10000	> Rs. 10000	
< Rs. 2500	15%	50%	8%	7%	19%	
Rs. 2501 – Rs. 5000	5%	69%	15%	10%	1%	
Rs. 5001 – Rs. 7500	0%	63%	20%	10%	7%	
Rs. 7501 – Rs. 10000	0%	67%	33%	0%	0%	
> Rs. 10000	50%	0%	0%	50%	0%	

Between 30% and 75% of distressed migrants managed to improve their incomes post migration, 10-15% of them actually more than doubling the pre-migration income. Surprisingly incomes of between 20-50% distress migrants actually remained unchanged following migration suggesting that there could be other influencing variables in the algorithm. The probability of moving up the income value chain was highest in the low-to-mid income earners.

Among the aspirants the increase in post migration incomes was significantly more than among the DMs, with 30-85% people actually doubling or more their pre-migration incomes; especially those earning less than Rs.2500 per month. A surprise finding was the drop in incomes of aspirants coming from the highest bracket. This could be due to the fact that their families are wealthy back home or /and that aspirant migrants may actually see a dip in their incomes before they see an improvement.

About 85% of DMs earned less than Rs.5000 per month as compared to just 60% of AMs. And 40% of AMs earned more than Rs.5000 a month as opposed to 14% DMs.

The Chi-square value at degrees of freedom 36 = 167.299 significant at 1% level of significance implies the strong association between the income earning patterns pre and post migration.

<b>Table 73 Post Migration Income Determinants</b>	
<b>Education</b>	Chi-square value at 4 degrees of freedom = 38.459 significant at 1% level of significance
<b>Age</b>	Chi-square value at 16 degrees of freedom = 59.213 significant at 1% level of significance
<b>Skill</b>	Chi-square value at 16 degrees of freedom = 59.213 significant at 1% level of significance
<b>Type of Migrants</b>	Chi-square value at 4 degrees of freedom = 136.253 significant at 1% level of significance

Determinants of post migration incomes are availability of skills, level of education, age and whether you are an aspirant or a distressed migrant. Skilled, educated and younger migrants are able to earn significantly higher incomes as compared to their counterparts.

#### **4.1 Why Do People Migrate? – A Logit Analysis**

For the ordered logit analysis the dependent variable taken is income categorized under 4 different groups as Rs. 500 – Rs. 1000; Rs. 1000 – Rs. 5000; Rs. 5000 – Rs. 10000 and Rs. 10000 and above. The independent variables being reason for migration, level of skill & education etc. Our response variable is ordinal under the assumption of that income levels are in order.

Education_Elementry	0.05	1.56***
Cast_SC& ST	-0.63	-2.04**
Cast_OBC	-1.08	-3.02*
Pseudo R <sup>2</sup>	0.27	
<b>Independent Variable</b>	<b>Coefficient</b>	<b>Z value</b>
Reason_Migration	-0.99	-3.12*
Land ownership	-0.22	-0.64
Skill	2.79	9.17*
Education_Ill	-0.33	-1.30***

<b>Table 75 Dependent Variable: Income (Faridabad)</b>		
<b>Independent Variable</b>	<b>Coefficient</b>	<b>Z value</b>
Reason_Migration	-0.45	-1.93**
Land ownership	-0.13	-0.56
Skill	1.78	7.22*
Education_III	-1.13	-3.25*
Education_Elementary	-0.09	-3.38*
Cast_SC&ST	-0.23	-1.06
Cast_OBC	-0.57	-1.84***
Pseudo R <sup>2</sup>	0.15	

**Note:** \*, \*\*, \*\*\* Are respectively 1 %, 5% and 10% level of significance

Both in case of Delhi and Faridabad, the probability of earning higher income for a distressed person is low. Similar relation exists across the education level of migrants. The probability of illiterate migrants earning income at the highest category is low. However, migrants having elementary education may earn higher income in Delhi, but the same doesn't hold true for Faridabad. The coefficient of skill shows positive relation with the level of income implying skilled migrants are more eligible to earn income at the highest category.

<b>Table 76 Dependent Variable: Reason for Migration (Delhi)</b>		
<b>Independent Variable</b>	<b>Marginal Effects (dy/dx)</b>	<b>Z value</b>
Skill	-0.51	-12.03*
Education_III	0.18	2.65*
Education_Elementary	0.24	3.68*
Age	0.12	2.00**
Cast_SC&ST	0.25	4.33*
Cast_OBC	0.30	4.72*
Income 1 <sup>st</sup>	0.21	2.59*
Income 2 <sup>nd</sup>	0.22	3.58*
Income 3 <sup>rd</sup>	0.02	0.10
Pseudo R <sup>2</sup>	0.24	

<b>Table 77 Dependent Variable: Reason for Migration (Faridabad)</b>		
<b>Independent Variable</b>	<b>Marginal Effects (dy/dx)</b>	<b>Z value</b>
Skill	-0.51	-11.11*
Education_III	0.45	8.27*
Education_Elementary	0.41	7.59*
Age	-0.14	-2.50*
Cast_SC&ST	0.04	0.69
Cast_OBC	-0.09	-1.22
Income 1 <sup>st</sup>	0.40	4.68*
Income 2 <sup>nd</sup>	0.18	2.92*
Income 3 <sup>rd</sup>	0.36	3.35*
Pseudo R <sup>2</sup>	0.35	

**Note:** \*, \*\*, \*\*\* Are respectively 1 %, 5% and 10% level of significance.

The method of analysis followed here is logistic regression, the dependent variable being the reason for migration (distress=1 and Aspiration =0) and independent variables are level of skill, education, income, age of migrants etc. from the tables above it is evident that skilled migrants have significantly lower probability of migrating with distress. However, lower education levels are positively related to distress implying migrants with low level of education more often than not migrate under distress. In Delhi, the probability of migrants from higher age groups to migrate under distress is high whereas the same is low for Faridabad.

<b>Table 78 Dependent Variable Urban centre (Both)</b>		
<b>Independent Variable</b>	<b>Marginal Effects (dy/dx)</b>	<b>Z value</b>
Reason	-0.09	-2.30**
Skill	0.08	1.97**
Education _ Ill	-0.20	-5.13*
Education _ Elementary	0.13	3.36*
Age	-0.07	-2.25**
Income 1 <sup>st</sup>	0.02	0.37
Income 2 <sup>nd</sup>	-0.85	-2.29**
Income 3 <sup>rd</sup>	-0.14	-1.38***
Pseudo R <sup>2</sup>	0.31	

**Note:** \*, \*\*, \*\*\* Are respectively 1 %, 5% and 10% level of significance.

Using the Logit Analysis to understand choice of urban centres by migrants, where the dependent variable was the city (Delhi=1; Faridabad=0) and the independent variables were factors which influenced city choice; we noted findings that were in contradiction of the earlier results. From the logit analysis; the educated-young migrants preferred Faridabad over Delhi whereas the skilled-illiterate migrants under distress and from low-income families, in particular the lowest-income families, opted for the larger city, Delhi. The study evidently needs more specific data to come to conclusions on the pattern.

#### **4.2 Changing Migration Trends**

Migration theories have linked migrating decisions to factors such as distance, population and economic opportunity. Everett Lee further theorised further that social factors such as age, gender, social class, caste, also influenced decisions to migrate.

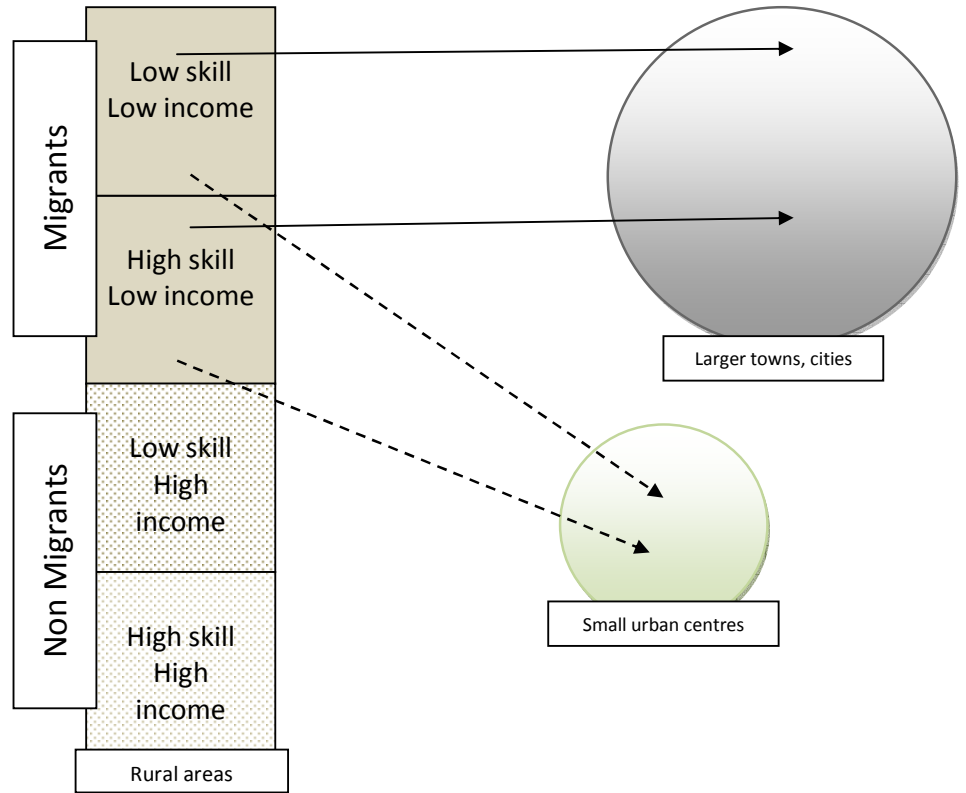
Early demographers validating these theories in the India context had concluded that it mostly the migrants were generally low-skilled and low-income people, albeit not those at the bottom of the pyramid who could not afford the expense of migration. The choice to migrate was exercised by those households where the difference between present income and expected income was high, and the households were wealthy enough to invest resources in migrating. Further, households looking for occupational mobility due to lower occupational ranks and income in the caste system (more strongly enforced in rural areas), found the prospect of migration more inviting than those who already enjoyed a higher position in the occupation and income hierarchy.

Ravenstien's 'laws of migration' described a phenomenon called absorption i.e. those living closer to a growing urban centre were more likely to migrate to it, leaving gaps which would be filled by migrants from farther off areas.

A simplistic representation of such migration trends is as follows:



- Expected difference in wages
- Prospect for occupational/ social mobility for lower class, castes, distressed



Present day migration does not necessarily have a simple relationship as is seen from this study. Distance, population, economic opportunities and social factors still influence and determine

migration, but new factors are giving impetus and forcing those with higher incomes and higher skills to migrate.

The effects of modernisation such as increase in transport and communication, and extremely high rate of growth of urban centres and in urban centres following infrastructure development and economic liberalisation have given impetus to all sections of rural households to migrate to both big and small urban centres.

Social and environmental factors, such as the weakening in intensity of traditional sanctions, movement towards democratic governance and emphasis on achievement than ascription has reduced the comparative advantage enjoyed by the traditionally high skill and high income in rural areas.

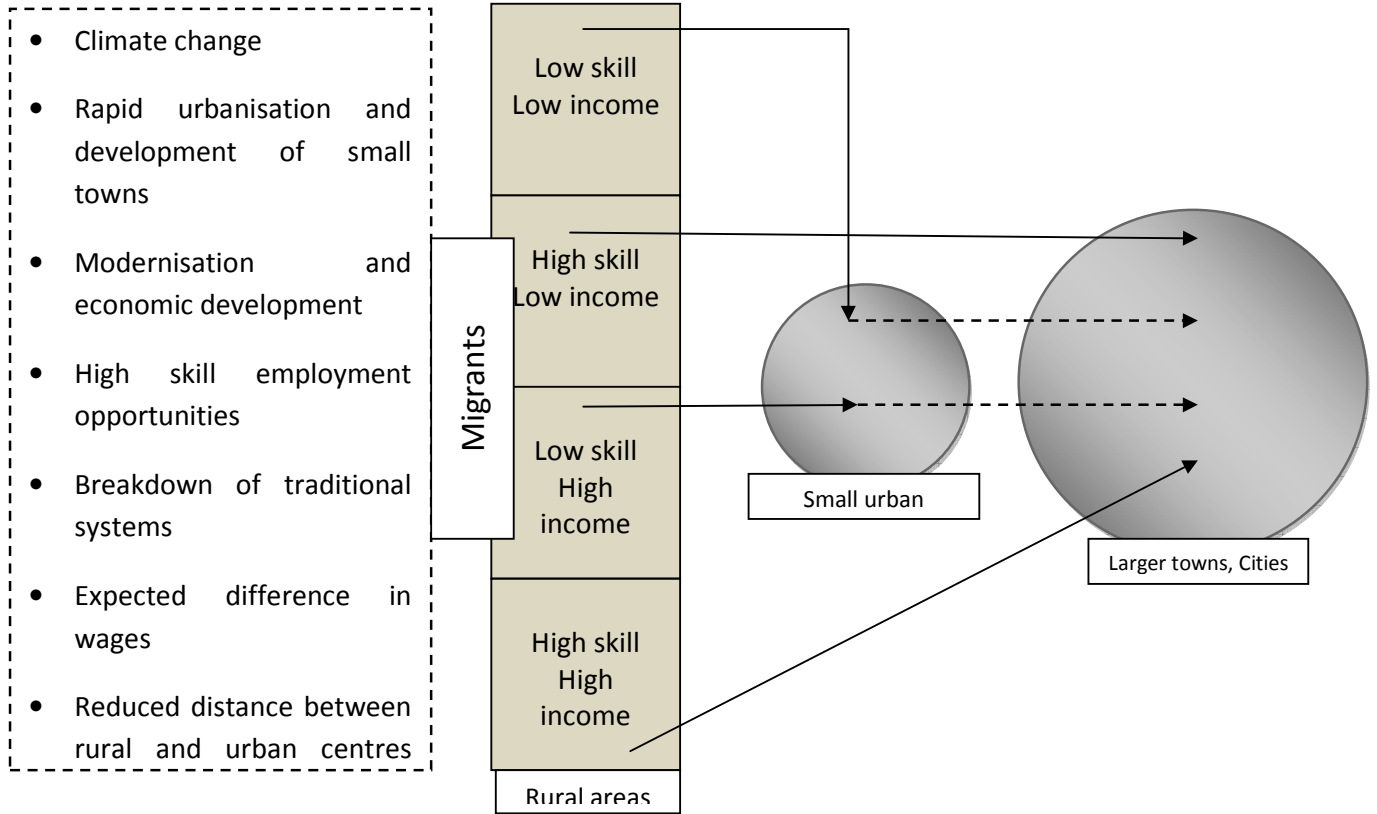
Simultaneously, the growth of urban centres both big and small has provided scope for absorption of better skills and knowledge creating opportunities for educated, highly skilled, traditionally high income to fulfil their aspirations to earn even better incomes, employment opportunities and to acquire better skills. Technological advancement in both villages and urban centres and growth of the manufacturing and services sector has created a vast surplus of labour in rural areas and a demand for workforce in the urban centres.

With increasing climate uncertainty, those earlier able to cope due to high income and multiple shock bearing assets are also being forced to move to urban centres having expectations of more stable livelihoods.

The growth of small, satellite, peripheral towns to big cities have created a more comfortable initial space for new migrants to leave rural areas. The initial economic and cultural shock faced by migrants has been mellowed by rapid growth of small towns and satellite cities to which more distressed migrants go and settle in first. It offers more affordable living, at the same time opportunities which accrue from being close to big urban centres.

The modernisation process has resulted in enhanced economic growth which is increasingly providing opportunities for both; the unskilled and economically downtrodden to eke out their living to overcome their economic distress; and the skilled and educated to pursue their aspirations to improve their standard of living.

Present day migration pattern may thus not essentially be from a small to a large town or from a low-income un-skilled household alone. This change can be represented as follows:



#### **4.3 Cities are growing due to quality migrants vs. Quality migrants influencing city growth – The Dilemma**

In the Delhi study, the choice of cities was a given; Delhi and Faridabad; and the study design did not intend to track if the nature of migrants drive city growth or city growth attracts a certain type of migrant. To analyse this, the survey needed to be conducted at source and not at destination. However, to understand if this study could track down the dilemma of city selection, we have looked at the development data of the two cities to arrive at some understanding of this.

Delhi has had phenomenal growth over the past few years as evident from: its gross domestic product (GSDP) for 2009-10 that showed a growth of 15% over 2007-08; the GSDP at constant prices that indicated a growth of 12.5% in 2007-08 as compared to 9% national average; and the per capita income at current prices that registered a growth of 12% over 2006-07. At the same time Delhi has observed a high rate of urbanization since 1911 with about 93% of the total population residing in urban areas by 2001. Percentage growth of population from migration was estimated to be as high as 50.42% as against the natural growth at 49.58%. Migration in Delhi has thus contributed equally to its growth. Delhi therefore continues to be the favoured destination for bulk of migrants. Our data shows that migrants to Delhi include the low-skilled and the low-literate. This suggests that the city has continued to grow despite the quality of its migrants.

Faridabad on the other hand, was the satellite town, strategically established near Delhi, to relieve the pressure of population growth in Delhi and to decentralize the location of industries. Faridabad has been the hub of industrial activity of the state of Haryana and contributed significantly to the state gross domestic product (GSDP) in the year 2008-09 that showed a growth of 18.4% over 2007-08 and the per capita income in Haryana at current prices that showed a growth of 16.8% over 2007-08; both rates being higher than that for Delhi. Industrial growth of Faridabad when compared to the population growth by migration suggests that Faridabad, despite its skilled migrants, is not the preferred migration destination as the economic activity in the city to a very large extent is directly dependent on the national capital.

Thus, there could be a chicken and egg argument here; growing cities do attract more migrants but the quality of migrants (skilled and unskilled, aspirants and distressed) does not necessarily contribute significantly to city growth; several other factors including the quality of infrastructure, access to municipal services, access to social services and quality of governance possibly have an impact on city growth.

## Chapter 5: Analysis and Findings – For Bengaluru and Doballabpur

The primary survey has made an attempt to map the recent trends in migration; the socio economic factors responsible for migration for distress reasons and aspiration reasons by canvassing an interview schedule to the migrants. Migration into satellite towns which have grown predominantly in manufacturing activity around the big cities has also been addressed by studies. (Mazumdar and Nagaraj, 1983) The satellite town in the context of the present study 'Dodballapur' has grown industrially and has a number of migrant workers working in these units.

### 5.1 Socio-Economic Profile of Migrants in Karnataka

The analysis presented in this section aims at examining the commonality/ variation in the socio economic profile of distress and aspirant migrants into Bengaluru- a cosmopolitan city and Dodballapur an emerging urban centre in the proximity of Bengaluru.

#### 5.1.1 Age profile

The age distribution of the migrants pertaining to the two study categories in the two study regions is in line with many other studies that observe that a large-scale migration occurs in the working age group especially between 15-29. A strikingly large percentage of aspirant migrants in the age group 15-29 in Bengaluru city, even as compared with the same group in Dodballapur accounts for the attraction that the youth have to big urban centres in pursuit of their aspiration. These findings are in tune with the census results which reveals that the proportion of migrants in the age group 15-29 from among the migrants who had just migrated was on the increase over each census period.

Yet another important difference between the aspirant and distress categories observed in the present study is that, while a majority of the aspirant-migrants choose to migrate in the 15-29 age group, the distress related migration (44.4 percent) is found to be in the category of 30-59 age group (Table 79). Incidentally, all migrants age distribution as reported in the Census 1981 for the 30-59 age-

**Table 79 Percent Distribution of Migrants by Age Group**

Age Group	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
0-14	0	0	0	0.4
15-29	54.8	76.0	54.8	63.6
30-59	44.4	23.6	44.4	34.8
60 and above	0.8	0.4	0.8	1.2

group (of the order of 42 percent) is very close to the present study's sample of the distress category. However, the proportion belonging to the 15-29 age groups as per the census averaged about 36 percent as compared to 76 percent aspirant migrants in Bengaluru region as per the present survey, which probably indicates a sharp increase in the migration tendency in the younger age groups. However, the fact that a large proportion of the population migrates in the working age group 15-25 is in conformity with other studies (Majumdar and Nagaraj, 1983). The present study makes it very clear that there can be marked difference in the age at which people migrate depending on whether people migrate to eke out their living owing to the distress and poverty or whether migration is an outcome of peoples' aspirations to acquire better skills and jobs.

#### 5.1.2 Year of migration

A large majority of the migration has happened during 2004 to 2007- interestingly, the aspirant category has revealed an increasing trend from 2004 until 2007 both in Bengaluru and Dodballapur. However, Dodballapur has a large-scale distress migration in 2006 and 2007 (Table 4.2).

Year	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
1996	-	-	0.4	-
2000	-	0.4	-	-
2001	0.4	-	-	-
2002	0.4	7.2	0.8	1.2
2003	0.4	2.4	0.8	0.4
2004	21.2	14.0	10.0	11.6
2005	29.2	24.8	13.6	20.8
2006	29.2	29.6	38.0	28.8
2007	18.8	21.2	35.2	33.6

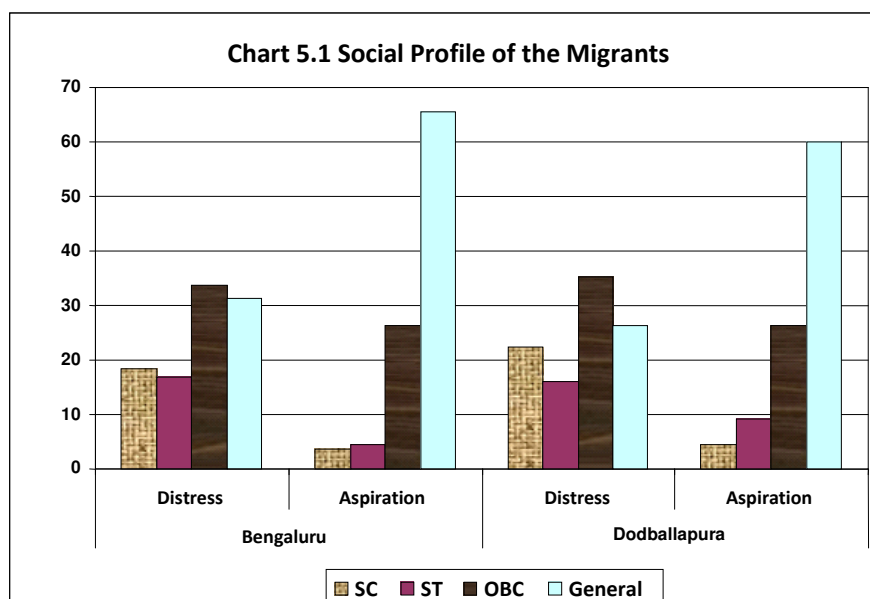
### 5.1.3 Social Profile

Social  
of the

Social Groups	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
SC	18.40	3.60	22.40	4.40
ST	16.80	4.40	16.00	9.20
OBC	33.60	26.40	35.20	26.40
General	31.20	65.60	26.40	60.00

profile

migrants and their distribution by 'Distress' and 'Aspiration' categories as observed from the study of urban centres reiterates the hitherto well established theories that economic and social backwardness are associated with one another and the socially backward communities are often less educated, unskilled and working in low paid jobs. The data presented in Table 81 reveals that while the share of SC, ST among the distress group is quite sizeable their presence among the aspirant migrants category is very small and insignificant. A strikingly contrast picture is emerging from the General category of the migrants.



#### 5.1.4 State Affiliation

##### Migration by last usual place of residence:

Migration as per the current survey is more from within the state; while the people who have migrated in to Bengaluru from within the state account for 63.2 percent and 65.6 percent respectively from distress and aspirant categories, that of Dodballapur is 74.8 percent and 70.4 percent respectively (**Table no. 82**). As it can be seen from **Table No. 83**, migration is higher from the districts in proximity to Bengaluru and Dodballapur for both distress and aspiration categories. This is in conformity with many migration studies which stress that the distance is an important variable in the migration. However, it can also be seen that the districts which are quite far away from Bengaluru and Dodballapur, though less in number, are also contributing to the within migration. But this may be attributed to the socio-economic setting of these districts, since these regions are known for their socio-economic backwardness.

**Table 82 Migration by Location of Last Usual Place of Residence**

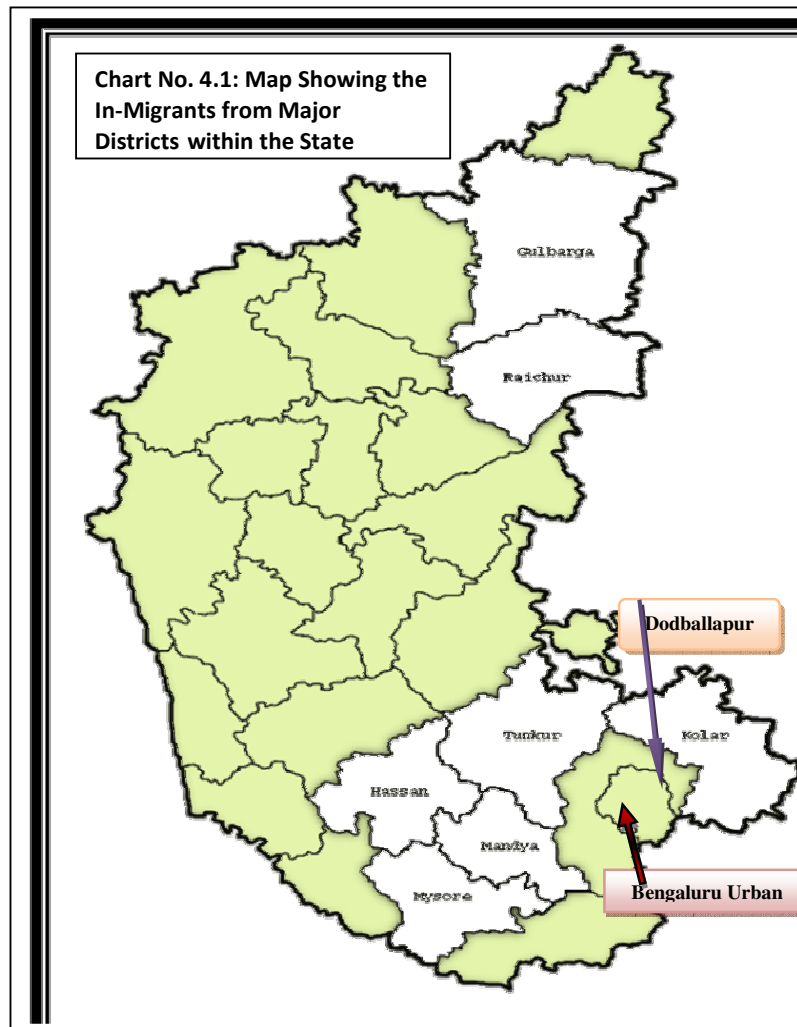
Location	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Same State	63.20	65.60	74.80	70.40
Other States	36.80	34.40	25.20	29.60

Migration from other states which is to the tune of 1/3<sup>rd</sup> and 1/4<sup>th</sup> respectively for Bengaluru and Dodballapur (Table No 84), is largely from the Southern states – Tamilnadu, Andhra Pradesh and Kerala with small number from other states. The Census results too reveal that the southern states-Tamilnadu, Andhra Pradesh and Kerala account for a large share of the total immigration into Bengaluru region. However, over each census period, the share of Tamilnadu migration is on the decline. Primary survey reveals that while Tamilnadu and Andhra Pradesh account for the bulk of migration, Andhra Pradesh has a large number of aspirant migrants in contrary to the Tamilnadu distress migrants.

District	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Tumkur	5.20	4.40	8.80	13.20
Raichur	0.80	4.80	16.00	2.80
Mysore	4.80	0.80	0.80	2.80
Mandya	4.80	5.60	2.00	0.80
Kolar	4.80	6.00	8.00	6.00
Hassan	4.80	6.40	2.00	5.20
Gulbarga	1.60	7.20	8.00	4.00
Chikkaballapura	1.20	1.20	4.80	5.20

Last Usual Place of Residence	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Andhra Pradesh	20.9	57.0	54.2	31.1
Bihar	3.3	1.2	12.5	9.5
Kerala	7.7	5.8	1.4	1.4
Tamil Nadu	63.7	23.3	12.5	8.1
West Bengal	2.2	0.0	1.4	6.8
Assam	0.0	5.8	0.0	2.7
Haryana	0.0	1.2	5.6	5.4
Orissa	0.0	2.3	1.4	20.3





A further delve into our primary data helped us to know that Kurnool and Anantpura of Andhra Pradesh and Krishnagiri, Salem, Palani and Thiruvannamalai of Tamil Nadu are the places from where emigration takes place to Bengaluru. This again corroborates with the findings of the earlier studies (**Table 85**) that the distance and socio-economic backwardness are the factors that lead to migration.

Interestingly, the large-scale migration happening from Tamilnadu into Bengaluru is on account of distress, although aspirant migrants are also sizeable in number. On the contrary, people moving from Andhra Pradesh are largely representing the aspirant group in Bengaluru and distress category in Dodballapur – which borders Andhra Pradesh.

<b>Bengaluru Urban Agglomeration, 1961-2001</b>					
<b>Migration Originating State</b>	<b>1961 Bengaluru Corp. and Trust Board Area</b>	<b>1971 BUA</b>	<b>1981 Bengaluru Urban Agglomeration</b>	<b>1991 Bengaluru Urban</b>	<b>2001 Bengaluru Urban</b>
<b>Tamil Nadu</b>	63	50	52	47	41
<b>Andhra Pradesh</b>	16	16	18	17	19
<b>Maharashtra</b>	3	5	5	5	4
<b>Kerala</b>	12	14	15	15	14
<b>Other states and Union Territories</b>	6	15	10	17	23
<b>Total Interstate Migrants</b>	100	100	100	100	100
<b>Absolute Number '00</b>	<b>2201</b>	<b>2671</b>	<b>4393</b>	<b>498310</b>	<b>825738</b>

*Source: Samuel M and Lingaraju M, 1989, Working Paper 13, Migration In Bengaluru, ISEC and Census of India Migration Tables D-3.*

#### **5.1.5 Nuclear/ Joint family**

A common characteristic shared by both the aspirant and the distress migrants is that majority of them belong to nuclear families; this is also true of migrants in both the urban centres especially in the category of aspirants. In the distress category, proportion of migrants from joint family are more in Bengaluru as compared to that of Dodballapur (Table 86)

**Table 86 Family Type of the Migrants**

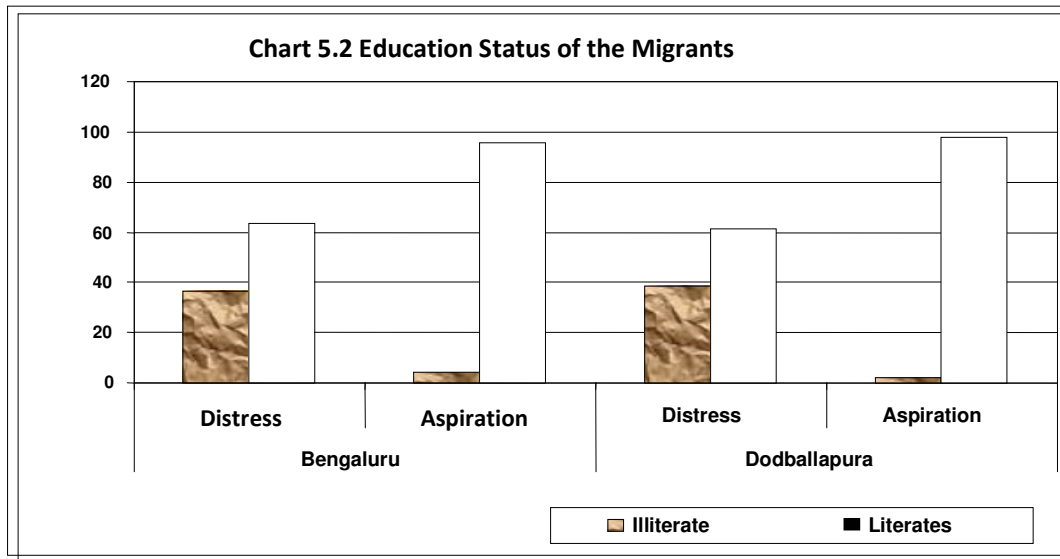
<b>Family Type</b>	<b>Bengaluru</b>		<b>Dodballapur</b>	
	<b>DMs (%)</b>	<b>AMs (%)</b>	<b>DMs (%)</b>	<b>AMs (%)</b>
<b>Joint Family</b>	17.2	5.6	5.6	3.2
<b>Nuclear Family</b>	82.8	94.4	94.4	96.8

#### **5.1.6 Educational Characteristics of Migrants**

Distress migrants are comparable in their literacy levels in both the urban centres- there is large-scale migration of the illiterates and the share of migrants with only primary or secondary level of education is much higher among the distress migrants (**Table 87**). On the contrary the aspirant migrant category has better literacy level and better educational qualifications. However, the study by Majumdar and Nagaraj (1983) argue that while a majority of them are literate their education is concentrated at the lower level that is either primary or secondary levels. The present study reveals that the literacy level can considerably vary by the category of migrants- i.e. the ones that migrate on account of economic compulsion or distress and the ones that aspire for better opportunities- while a majority of them are literates, the former has a significant share of illiterates. Education status by levels of education as presented in **Table 88** clearly reveals that while the distress group clearly has larger proportion below the secondary stage that of the aspirant group has a much larger share in the higher education levels.

**Table 87 Education Status of the Migrants**

Education Level	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Illiterate	36.4	4.4	38.8	2.0
Literates	63.6	95.6	61.2	98.0



**Table 88 Education Status of the Migrants by levels of Education**

Education Status	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Illiterate	36.4	4.4	38.8	2.0
Primary Education	22.4	7.6	19.2	7.6
Secondary Education	33.2	29.6	32.4	25.2
PUC	5.6	14.4	6.4	16.8
Graduation	1.6	24.4	0.8	22.4
Post Graduation	0.0	2.4	0.4	2.0
Diploma/Polytechnic	0.0	8.0	1.2	18.0
Computer/Tailoring/Typing	0.0	0.0	0.0	0.0
Others	0.8	9.2	0.8	6.0

## 5.2 Economic Characteristics of Migrants

One common factor observed to be present among both the groups is the fact that (Table 89) majority of them did not have a job at the time of migration. This is more true of Bengaluru as compared to Dodballapur where in, there were some people who moved in to the city with a job at the time of migration. This finding corroborates findings from other studies.

Particulars	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Migrants having a job at the time of migration	2.0	9.2	17.6	27.6
Migrants not having a job at the time of migration	98.0	90.8	82.4	72.4

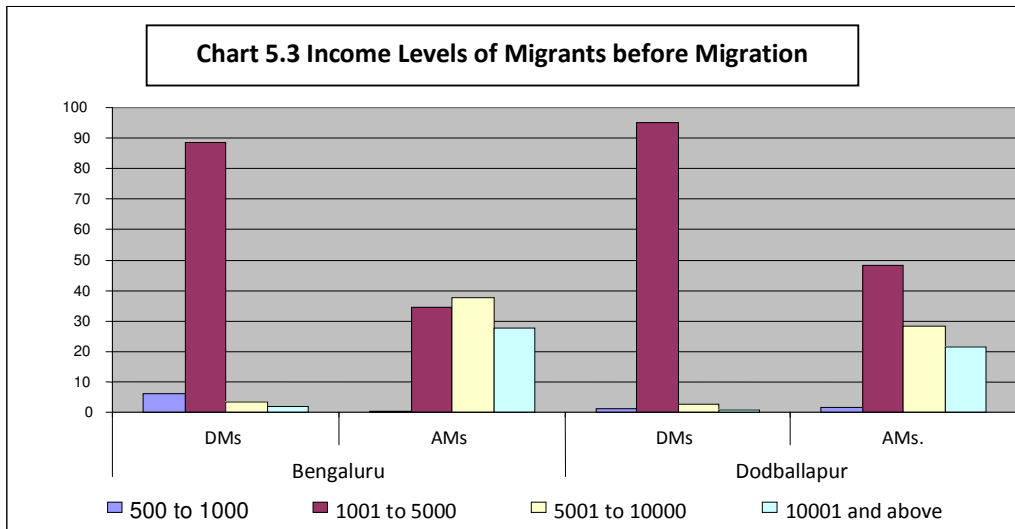
### 5.2.1 Occupation

Sample respondents from the 'distress' category were observed to be predominantly in the 'unskilled' occupations and to a smaller extent in the semiskilled<sup>9</sup> and primary sector related occupations unlike the 'aspirant' category largely representing the 'skilled' and 'primary' and semi-skilled occupations before they migrated to the urban centres. However, a fair proportion of aspirant migrants in to Bengaluru also were from 'unskilled' occupation categories. Occupation in the primary sector, i.e. agriculture and related activities has been exclusively tracked in the present study in order to understand how much of migration happens from the sector. The present study's results (**Table 90**) reveal that the distress migration from primary sector occupation is very small as compared to that of aspirant migration. The farm rich are pursuing their aspirations by moving to the urban centres.

The proportion of people in the smallest monthly income range of Rs.500 – Rs. 1000 is very small in both the distress and aspirant categories and both the urban centres before migration. However, a very large proportion of distress group (who had moved to Dodballapur) are in the income range of Rs 1001-Rs 5000, whereas almost 65 percent of the aspirants who had moved to Bengaluru and 50 percent of aspirants moving to Dodballapur were in higher income ranges i.e. Rs 5001- Rs 10,000 and above

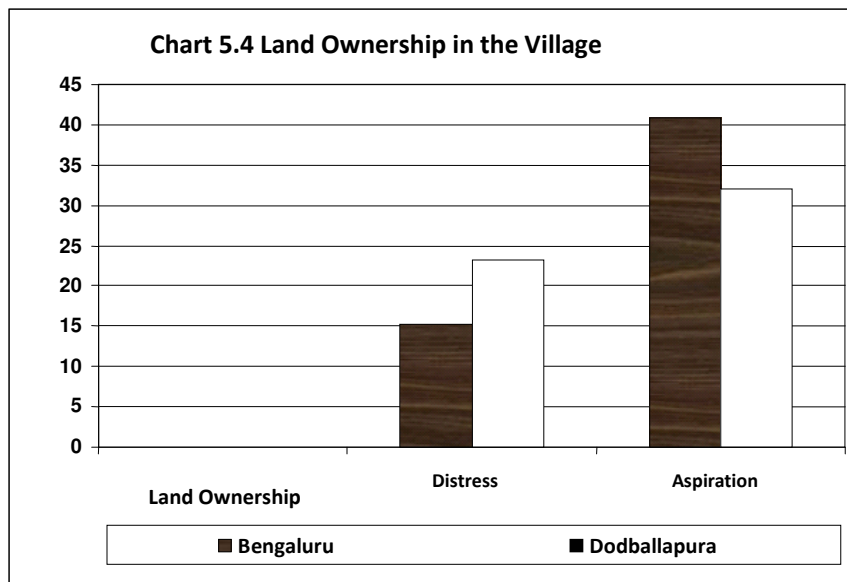
Occupation	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Skilled	3.6	32.4	2.4	50.8
Unskilled	71.2	16.4	70.4	4.4
Semiskilled	7.2	19.2	6	14.4
Primary Sector	4.8	20.4	7.2	21.6
Others	13.2	11.6	14	8.8

<sup>9</sup> The study for its purpose classified Skilled labours to include workers from sectors – Garments, Electrical and electronic, Drivers, Carpenters, Call centres; Unskilled were classified as those who worked basically in construction sites, coolies, daily wage labourers; Semi-skilled were classified as those who worked in Hotels, Petty shops etc.



Regarding the economic asset ownership of the migrants' information was sought regarding the land and other assets, income etc., and results based on this analysis are presented below. Non response with reference to income details was very high and this is very much expected and has been a common experience of many surveys.

The sample aspirant migrants owning landed assets are considerably larger in Bengaluru as compared to that of Dodballapur (Chart no 82). As observed in the NCRL report, even the subsistence migrants possess land, but largely they belong to small and marginal farm land owners.



Present study's findings also corroborate these observations (**Table 91**) where in one can observe that the percentage of respondents owning land from General category and that of OBC is bigger as compared to that of the SC and ST categories. In addition, these groups are observed [**Table No. 92 (a) and Table No. 92 (b)**] to be having very small extents of land, i.e. in the range of 1-2 and 2-5 acres of land. Further, the quality of land owned by these categories as to whether the land is 'arable' and 'irrigated' also substantiates the vulnerability of the 'distress' category of the migrants.

**Table 91 Land Ownership by Social Group**

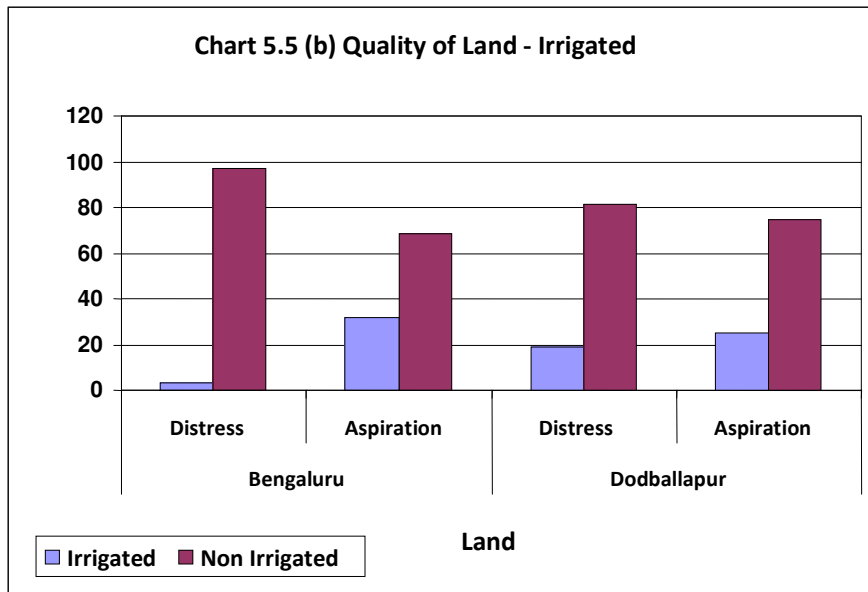
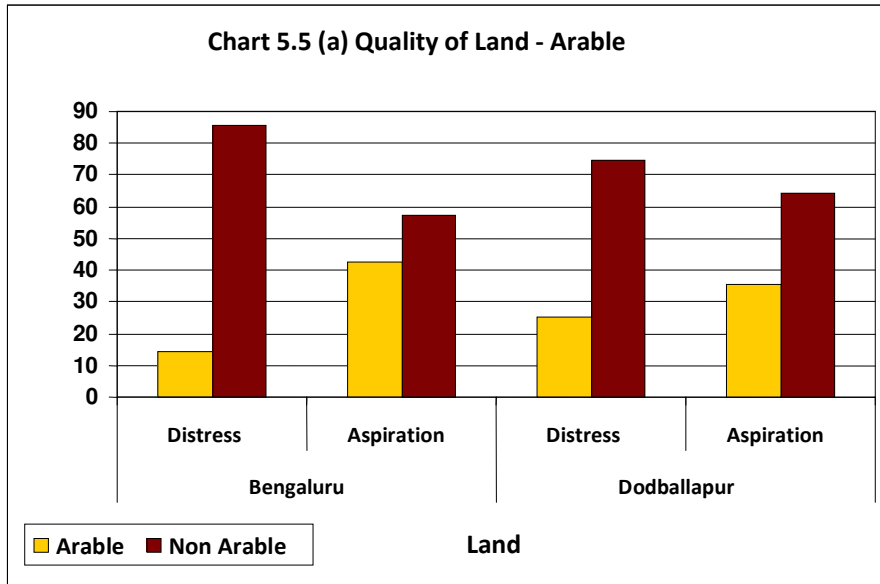
Social Group	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
SC	2.0	1.6	4.4	1.2
ST	0.8	2.4	1.6	4.0
OBC	10.0	14.0	9.2	9.6
General	2.4	22.8	8.0	21.2

**Table 92 (a) Land Ownership by Social Group (Dodballapur)**

Area of Land	SC		ST		OBC		General	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)	DMs (%)	AMs (%)	DMs (%)	AMs (%)
1 to 2 acers	2	0.4	0	0.4	4	1.6	0.8	4.8
2 to 5 acers	2	0.4	1.6	2.4	4.4	6.4	4	9.2
5 to 7 acers	0	0	0	0	0	0	1.2	2.4
7 to 10 acers	0.4	0	0	0.8	0.4	0.8	2	2.8
10 and above	0	0	0	0	0.8	0.4	0	2.4
No land	17.6	3.6	14	5.6	26	17.2	18.8	38.4

**Table 92 (b) Land Ownership by Social Group (Bengaluru)**

Area of Land (in acres)	SC		ST		OBC		General	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)	DMs (%)	AMs (%)	DMs (%)	AMs (%)
1 to 2	1.2	0.4	0	0	3.6	3.2	0.8	2.8
2 to 5	4	0	0.4	1.2	7.2	7.2	3.2	10
5 to 7	0	0.4	0	0.8	0	2	0.4	3.6
7 to 10	0	0	0.4	0.4	0	0.4	0	3.6
10 and above	0	0	0.4	0	0	1.2	0	2.4
No land	13.2	2.8	15.6	2	22.8	12.4	26.8	43.2



### 5.3 Foot Printing Migration

Bengaluru and Dodballapur appear to be the first urban centre that a majority of both aspirant and distress migrants have moved into. The proportion of people moving into these regions as second or third destination is very small. Since the study's focus is to analyze the migration trends in the new economic context, only the recent migrants (migrating in the last 6-7 years) are included for the study, during this short period we have not discerned any frequent change in the destination of the migrants.

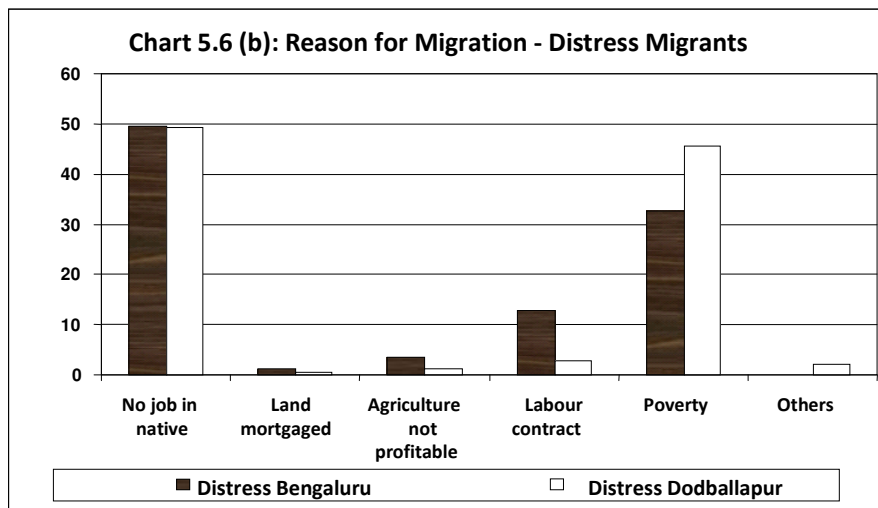
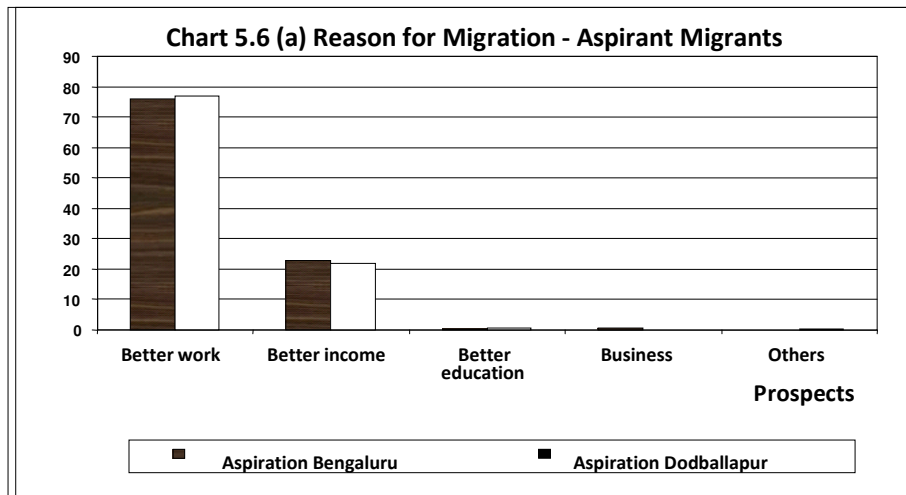
**Table 93 Foot Printing Migration**

No. of towns/cities	Bengaluru	Dodballapur
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migrated to	DMs (%)	AMs (%)	DMs (%)	AMs (%)
First City/Town	95.6	96.8	98.4	99.6
Second City/Town	4.0	2.8	1.6	0.4
Third City/Town	0.4	0.4	0.0	0.0

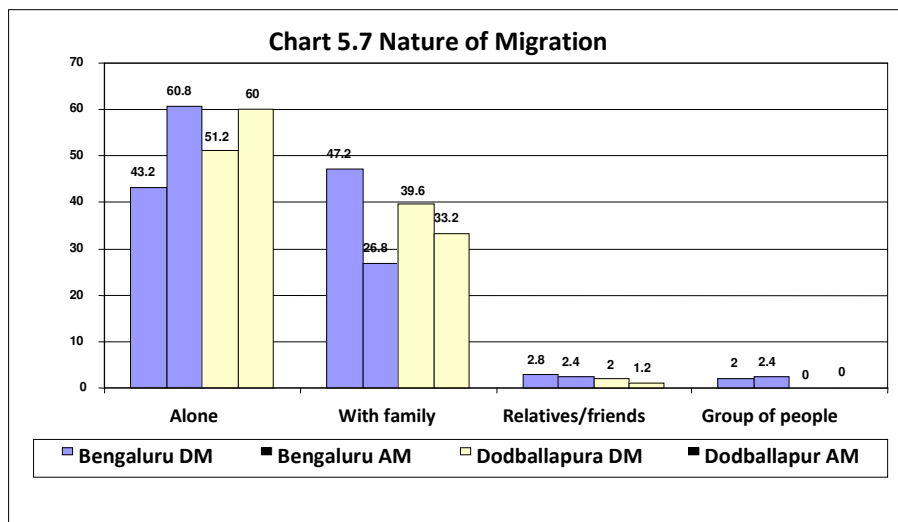
### 5.3.1 Why Do People Migrate?

Migration to the urban centres is backed by different motivations for different sections of the society. These are very clearly evident from the survey which reveals that largely the distress migrants have moved on account of lack of jobs in the native place and followed by poverty. A very small percentage state that their migration was related to prospects in the agriculture sector. On the contrary a very large proportion of the aspirant migrants ascribed their movement to better prospects followed by better income as the reasons for moving to the cities.



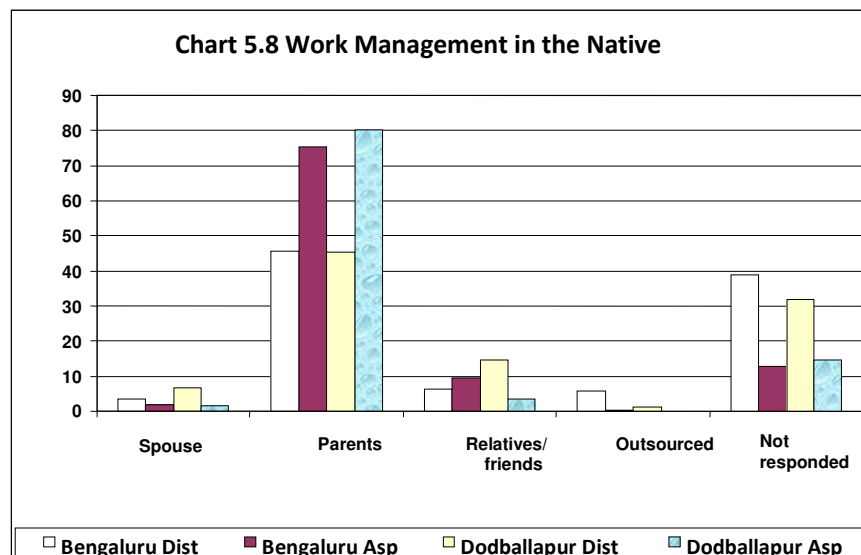
Migration in to the urban centres is observed to be to a larger extent by the individual alone, more so that of the aspirant category. As observed earlier a large proportion of the aspirant migrants belong to younger age groups and probability of them being single is quite high. On the contrary, the distress migrants have moved in to the cities with families in a significant proportion. A very small proportion of migrants are observed to have moved in groups or with friends and relatives.





### 5.3.2 Coping in the Village

Migration by the main bread earners to urban centres causes a great deal of hardship to the family members who do not accompany them but manage the household responsibilities back home. In majority of the cases parents manage the work back home however a significant proportion of the distress migrants chose not to respond to this query.



Decision to migrate was also largely by the individual followed to a small extent by the spouse- the large share of the nuclear families and the individual decisions account for the changing family structures even in the rural India.

**Table 94 Decision about migration**

	Bengaluru	Dodballapur
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Decisions taken by	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Yourself	71.2	89.2	80.8	89.6
Spouse	21.6	8.8	14.8	9.6
Children	0.4	0	0.8	0
Parents	3.2	2	1.2	0.4
Relatives/friends	0.8	0	0	0
Not responded	2.8	0	2.4	0.4

#### 5.4 Economic Status of Migrants after Migration

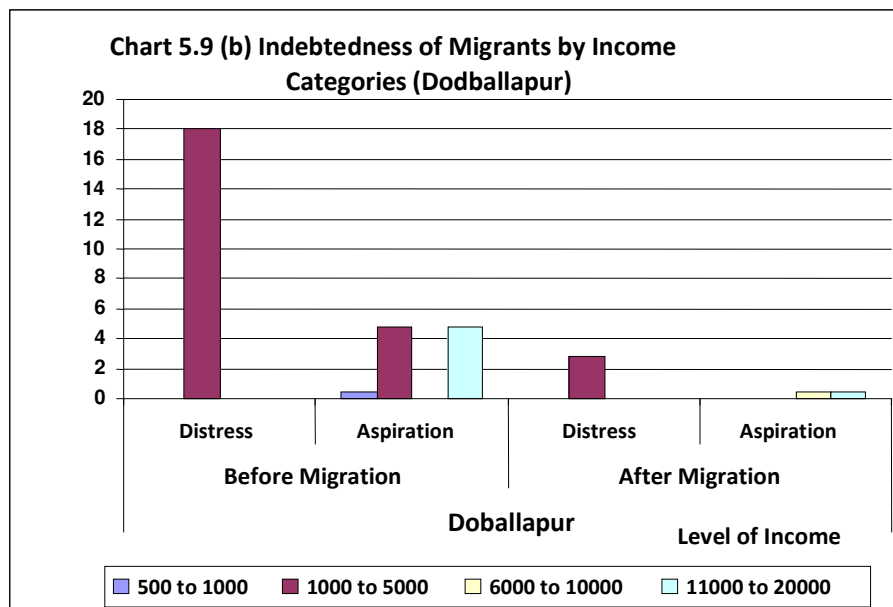
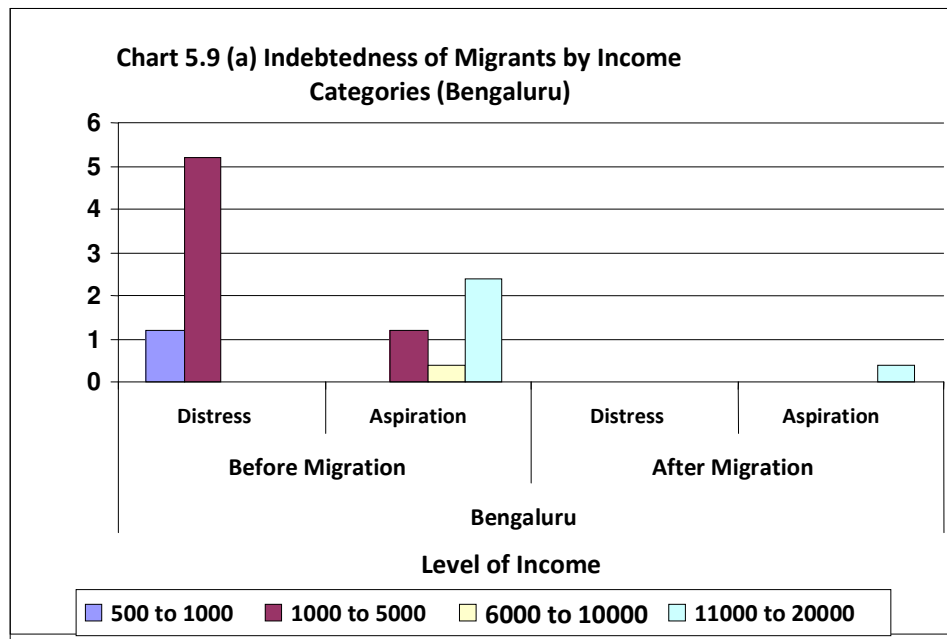
An attempt has been made in the present section to analyze the economic situation of the migrants after they have migrated to the urban centres.

**Income level:** An important objective guiding migration is to improve their economic condition. Income details, a key indicator of the economic well being of a person, were collected from the migrants as earned by them initially on entry into the urban centre and their present earning. While, both in Bengaluru and Dodballapur the non response was quite high, especially that of the distress group in Dodballapur, there is clear significant increase in the income level of the migrants.

**Table 95 Level of income of the migrants initially and finally**

Level of income	Bengaluru				Dodballapur			
	DMs (%)		AMs (%)		DMs (%)		AMs (%)	
	Initially	Finally	Initially	Finally	Initially	Finally	Initially	Finally
500 to 1000	12.4	3.6	1.6	0.0	5.6	0.4	0.4	0.0
1001 to 3000	54.0	48.4	22.8	9.2	48.4	41.2	38.0	14.0
3001 to 6000	8.4	28.0	26.0	28.4	4.4	17.6	18.8	34.8
6001 to 10000	1.2	3.2	14.4	18.4	0.0	0.0	10.8	12.8
10001 & 25000	0.0	0.0	7.6	16.0	0.0	0.0	2.8	8.8
25001 & above	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.8
People not responded	24.0	16.8	27.6	26.4	41.6	40.8	29.2	28.8

The increased income levels have helped them reduce their indebtedness. A comparative picture of their indebtedness pre and post migration reveals that reduction in their indebtedness levels in both the urban centres, in a more significant manner for the migrants in Dodballapur.

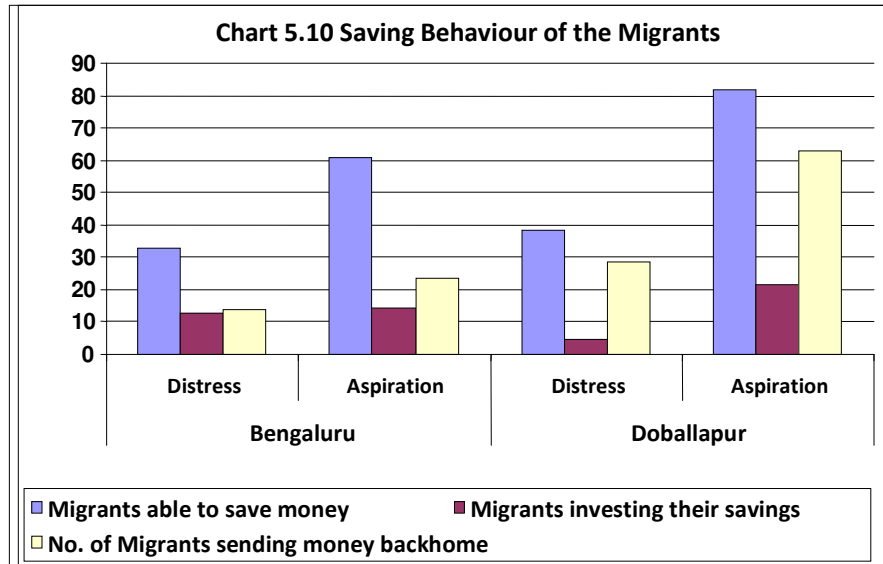


Following their increased income levels, it can also be observed that a sizeable proportion, more so in the aspirant category are able to save and invest too. Migrants in Dodballapur have better saving, investment and support back home.

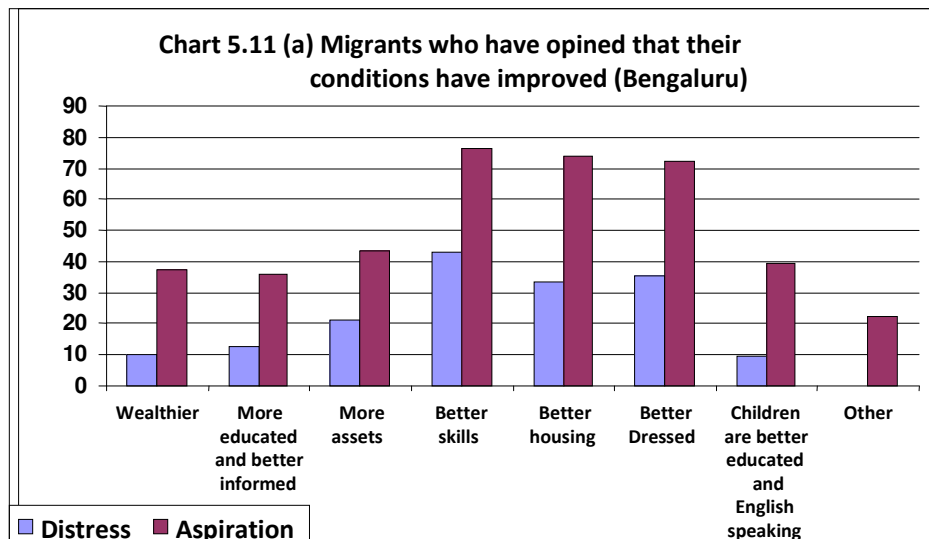
**Table 96 Saving Behaviour of the Migrants**

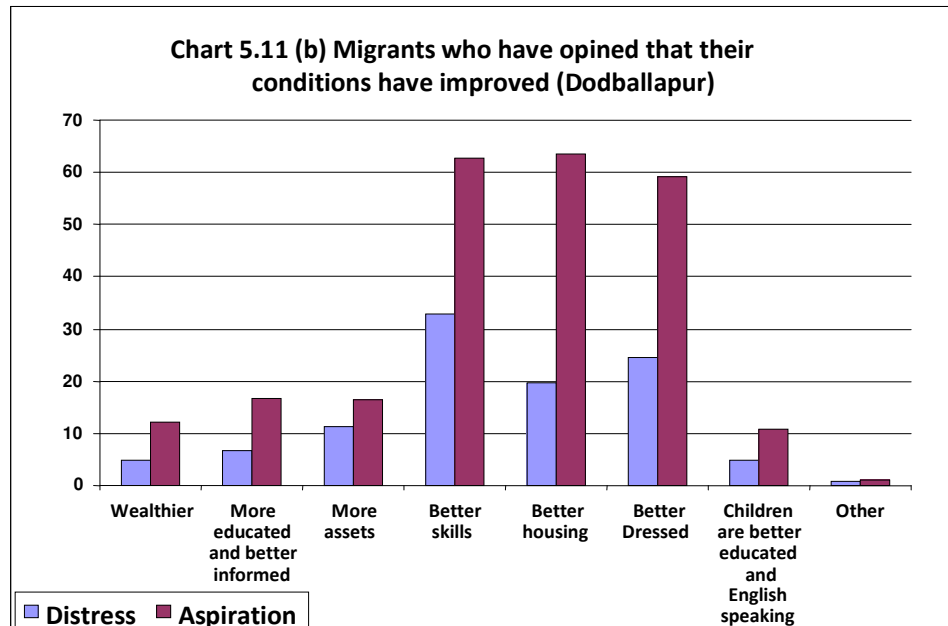
Saving Behaviour	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Migrants able to save money	32.8	60.8	38.4	81.6

Migrants investing their savings	12.8	14.4	4.8	21.6
No. of Migrants sending money back home	14	23.6	28.4	62.8



In addition to these perceivable economic improvements experienced by the migrants, a large majority of them have opined that their condition has improved on many counts [Chart no 5.11 (a) and (b)] A larger proportion of the aspirant migrants opine improvements as compared to that of the distress migrants. However, we understand that a mere opinion survey regarding access to various amenities would not aid in a proper assessment of the living conditions of the migrants in a new environment. In fact, a detailed survey probing in to each of the amenities, their access, quality of service etc are very important, these issues were outside the scope of the present study.





### 5.5 Settling down

A larger percentage of migrants in the new urban settlements, especially that of Bengaluru has voter IDs than ration cards accounting for the importance that voters have in the country. Larger percentage of aspirant migrants possesses bank accounts and driving licenses.

**Table 97 Migrants having documents in the new city**

Documents	Bengaluru		Dodballapur	
	DMs (%)	AMs (%)	DMs (%)	AMs (%)
Ration Card	16.4	15.2	10.8	0.8
Voter ID	32.0	32.0	12.8	26.4
Driving License	4.0	22.4	2.0	23.6
Bank Account	10.0	64.8	0.4	61.2

### Why People Migrate: A Logit Analysis

The outcome measure in this order logistic analysis is income- 500 to 1,000, 1,000 to 5,000, 5,000 to 10,000 and 10,000 and above, from which we are going to see the relation with independent variable like Reason for migration, Skill or Unskilled, Education level etc. Our response variable is a ordinal under the assumption that income level are in order.

Table 98 (a) Dependent Variable: Income (Bengaluru)		
Independent Variables	Coefficient	Z value
Reason_Migration	-1.24	-3.64*
Land ownership	0.13	0.54
Skill	0.92	3.36*
Education_III	-1.53	-3.07*
Education_Elementary	-1.79	-6.05*
Cast_SC&ST	-0.04	-0.15
Cast_OBC	-0.52	-1.45
Pseudo R <sup>2</sup>	0.24	

Note: \*, \*\*, \*\*\* Are respectively 1 %, 5% and 10% level of significance.

From the **Tables 98 (a) and 98 (b)**, both for Bengaluru and Dodballapur the relation between Distress and Income are negatively related. In other words, distressed person possesses a lower probability of earning income of the highest category of income. Similar relation exists in with the case of education level, i.e. with low education probability of earning higher income is low. But on the other hand, with more skill people are more exposed to earn more income. In both the cases (Bengaluru, Dodballapur) the caste variable i.e. SC and ST is not significant. Only in case Bengaluru OBC variable is significant.

Table 98 (b) Dependent Variable: Income (Dodballapur)		
Independent	Marginal Effects (dy/dx)	Z value
Skill	-0.12	-1.52
Education_III	0.41	4.28*
Education_Elementary	0.32	4.05*
Age	0.16	2.18**
Wage	-0.41	-5.96*
Cast_SC&ST	0.30	3.35*
Cast_OBC	-0.05	-0.56
Income 1 <sup>st</sup>	0.52	8.95*
Income 2 <sup>nd</sup>	0.46	7.32*
Pseudo R <sup>2</sup>	0.51	

Table 98 (c) Dependent Variable: Reason for Migration (Bengaluru)		
Independent Variables	Marginal Effects (dy/dx)	Z value
Skill	-0.36	-4.99*
Education_III	0.50	5.78*
Education_Elementary	0.20	2.32**
Age	-0.07	-0.88
Wage	-0.63	-11.89*
Cast_SC&ST	0.03	0.37

<b>Table 98 (c) Dependent Variable: Reason for Migration (Bengaluru)</b>		
<b>Independent Variables</b>	<b>Marginal Effects (dy/dx)</b>	<b>Z value</b>
Cast_OBC	-0.09	-0.87
Income 1 <sup>st</sup>	0.57	4.52*
Income 2 <sup>nd</sup>	0.37	1.87***
Pseudo R <sup>2</sup>	0.57	

Here, our method of analysis is logistic regression, where dependent variable is reason for migration (Tables 98 (C) and (i.e. Aspiration = 0, Distress = 1). Here our independent variables are level of skill, level of education, income, age of the migrant etc. From the table it very much clear that skill person has lower probability of migrating with Distressed. Lower education and distressed migration are positively linked, that means ill-literate or low educated person has higher chance to migrate in distressed. Form variable wage, it is clear that distressed people are more likely to get into dally wage worker that regular work. There is not significant influence of case on reason of migration except in case of Bengaluru SC and ST are more from the distressed group. Here another notable finding is positive association between low income and distressed migration.


<b>Table 98 (d) Dependent Variable: Reason for Migration (Dodballapur)</b>		
<b>Independent Variables</b>	<b>Coefficient</b>	<b>Z value</b>
Reason_Migration	-2.18	-6.68*
Land ownership	-0.34	-1.47
Skill	0.96	3.68*
Education_III	-2.031	-4.31*
Education_Elementry	-1.19	-4.71*
Cast_SC&ST	0.11	0.30
Cast_OBC	0.47	1.88**
Pseudo R <sup>2</sup>	0.29	

<b>Table 98 (e) Dependent Variable Urban Centre (Both)</b>		
<b>Independent Variables</b>	<b>Marginal Effects (dy/dx)</b>	<b>Z value</b>
Reason	0.45	5.24*
Skill	0.07	4.01*
Education_III	-0.59	-8.68*
Education_Elementry	0.50	7.90*
Age	-0.24	-4.58*
Wage	0.01	0.02
Income 1 <sup>st</sup>	-0.94	-74.26*
Income 2 <sup>nd</sup>	-0.35	-6.42*
Pseudo R <sup>2</sup>	0.59	

In the **Table 98 (e)** we tried to find out the reason behind the choice of urban centres (Bengaluru, Dodballapur). Here our dependent variable two centre (Bengaluru=1, Dodballapur=0), and independent variables are factors which can influence the location choice like our earlier

analysis skill, level of education etc. here from the result it is very much clear the skill, Educated young people are more likely to favoured Bengaluru than Dodballapur, and all less income group, ill-literate people's favourite place is Dodballapur.





## Chapter 6: Conclusions and Recommendations

This section provides a summary of the findings of the research study. An attempt is made at the end to make some recommendations to the Government on management of migration.

### **6.1 Demographics of Migration**

Most migrants are young people, in the age group of 21 and 30 years. Aspiring Migrants (AMs) are younger to Distress Migrants (DMs), the age gap being 2 years. Typically men migrate to cities with just 1 in every 10 migrants being female both among AMs and DMs. Since the respondents were selected at random this represents a true gender profile. This is true for Bengaluru urban as well, where migration among youth (15-29 years) was high; 76 percent of the aspirant migrants belong to this age-group. Census findings are corroborated by the data from the study indicating that the proportion of 'just migrants' were mostly young.

No particular community is migrating more than others; the proportion of migrants from each religious community corresponds with their population curve at an all India level; (most migrants are Hindus, 2 in every 10 are Muslims). Although statistically insignificant, there were more DMs among Muslims and more AMs among Hindus. Among the two cities, nearly twice the number of Muslim migrants was in Delhi as compared to Faridabad, attributed the more cosmopolitan culture of a metro that makes religious blending easy and safe.

Lower castes dominate among all migrants with SC, ST and OBCs contributing over half the share in total migration. More DMs are from lower castes and more AMs are from general caste categories. Lower caste groups with poorer socio-economic backgrounds are more easily distressed. A very small proportion of migrants belong to the scheduled tribes; these communities being less connected to the outside world and hence less influenced by growing urban prosperity and aspirations for social mobility.

Migrants to both cities come mostly from the northern states; UP, Bihar and Haryana, which send more AMs than DMs to the sample cities. Faridabad, also gets more in-state migrants. States of Maharashtra, Tamil Nadu, Kerala, Karnataka, do not send any distressed migrants to Delhi.

State affiliations of migrants suggests a direct and negative correlation with the state's GDP; the lower the state GDP higher the migration. The Bottom States (BMs) push out more migrants to growing urban areas due to a lack of opportunities in their own states. UP however, proves to be an exception. Even though it ranks second among all Indian states on GDP rankings, its per capita GDP is low and there is greater inequality in distribution of wealth and therefore in spite of a high GDP, it fails to create an economic impetus for which migrants would like to stay back. In Karnataka it was observed that occupation and income levels of migrants varied substantially.

### **6.2 Migration Trends**

A jump in migration was seen in 2005 and 2006, coinciding with disasters in Bihar and UP (floods of 2005) that pushed large numbers from the two states to Delhi and Faridabad. This was followed by a drop in migration in 2007 corresponding with an increase in agriculture productivity based on new

support and loan waiver policies of the central government. Although one may have expected more DMs in these years, the study did not find any evidence and attributes this to our sampling bias.

For each year, Delhi received more migrants as compared to Faridabad, except in 2007 confirming the study hypothesis about increasing attraction of cities in metro neighbourhoods due to their fast growth, good economic/livelihood opportunities, less crowding and less expensive living.

Urban centers in Karnataka, especially Bengaluru, have experienced rapid economic growth that has fuelled migration; the per capita income of the Bengaluru urban region having increased sharply from Rs31804 in 2001-02 to Rs55484 in 2004-05. Bengaluru rural region has also experienced the increase, although not as sharply as that of Bengaluru Urban; from Rs21821 to Rs24805 during the above reference period.

### **6.3 Pre Migration Family, Work and Income Profiles**

Nearly 75% migrants came from nuclear families; more AMs belong to nuclear units, indicative of a greater personal control over decision-making. Average family size is 6 and DMs have larger families at 6.5 when compared to AMs at 5.5. Dependency ratio or non-working members to working members for DM and AM families is 2 and 3 respectively. A low dependency ratio for DMs is not unexpected as more family members are required to work to help families survive, and do not get fully educated. AMs spend more time on studies that raises the dependency ratio. More DMs are illiterate and educated up till middle school as compared to AMs whereas more AMs opt for higher education (senior secondary and above). Interestingly, Delhi receives more illiterate migrants as compared to Faridabad because of its industrial economy that requires more skilled and educated workers.

Predominant occupation in village/town of domicile was hired labour; just one-tenth migrants being farmer-owners. Interestingly, more among AMs were in unskilled labour work compared to DMs. Farming was the more dominant profession among DMs. Average monthly family income prior to migration was Rs. 2434; and per capita per month income was Rs. 274. Although AMs earned marginally higher at Rs. 2537 (Rs. 291 per capita) as compared with DMs at Rs. 2133 (Rs.260 per capita), the difference was not found to be significant using the T test. Modal values showed both AMs and DMs to be mostly earning Rs2000 per month suggesting that Aspiring Migrants need not be coming from better economic backgrounds and that need to earn better drives people to migration.

Monthly incomes however, were found to vary widely, between Rs.500 and Rs.16000. More DM families were below the poverty line as compared to AMs. Incomes of the poorest DM families were Rs.500 per month as against Rs.1000 among the AMs and the richest among the DMs earned Rs 10000 as against Rs 16000 per month among the AMs.

### **6.4 Land and Asset Ownership**

Most migrants do not own land or livelihood assets. Less than half of all migrants owned livelihood/economic assets prior to migration, indicative of their low earning potential. Farm land ownership was even lesser with just 1 in every 4 families, mainly DMs, owning land. Among owners, livelihood and social assets were found in equal proportions among both migrant families; although social assets were marginally more available compared to economic or livelihood assets, in particular among AMs. Arable land ownership was significantly higher among DMs and this suggests that these families could be experiencing low agriculture productivity possibly linked to climate change. Land mortgaging among DMs was higher and used as a strategy to deal with financial distress and debt service.

One fifth of all DMs and half of AMs were in debt at the time of migration; average debt being Rs. 40514 per family. Debt liability for DMs was lower than for AMs, and could be because of lower

creditworthiness or demand, even though borrowings were mostly from private financiers or money lenders. Borrowings have ranged from Rs.500 to Rs.12,000,00; with most borrowings under Rs.20000 and Rs.10000 the most common sum borrowed. Some DMs borrowed even to meet expenses for shifting; the average loan being Rs. 3625.

Migrants borrowed for reasons of health, social obligations, housing, and to meet migration expenses. Highest borrowings were for housing or asset creation, these requiring more finances. AMs borrow more for social obligations possibly because of their better socio-economic status and need to spend more on social activities.

### **6.5 Foot Printing Migration**

Nearly three-fourth migrants were first-timers; in particular among AMs, and is indicative of their increasing share in the migration space. Over half the first-time migrants preferred Delhi over Faridabad. While AMs preferred to stay in one city, DMs were often more mobile; moving from one town to another.

The rural to urban migrants preferred Faridabad due to higher comfort levels offered by the peri-urban area and was less overwhelming than Delhi. The first timers also often opted for JNNURM cities to migrate as compared with the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> time migrants who preferred Non-JNNURM cities indicating, the smaller towns are gaining importance in reducing population pressure.

### **6.6 Reasons for Migration**

Migration is mostly the result of envisaged opportunities in cities for livelihoods, improved incomes and living standards. AMs, significantly more than DMs, aspire for better earnings/living standards. Distressed families, even though driven from native places for other reasons, do see cities as places with better work and income opportunities, but rarely as permanent homes. Lack of employment in villages /towns is often a main push factor. Delhi and Faridabad are equally recognised as good destinations, although Delhi has an edge over Faridabad, however, migrants who move because they do not have jobs in native places prefer Faridabad over Delhi; due to its accessibility and peri-urban nature.

### **6.7 Is Climate Change Causing Distress? Are Patterns of Agriculture Changing?**

A growing percentage of DMs involved in agriculture felt that climate had changed over the past 5 years (19 to 61%). Nearly half felt that timing and amount of rainfall was no longer predictable, was worsening, and affected outputs and earnings. Even as rainfall pattern and quantity had changed, irrigation facilities had not been developed to fill the gap except in a few areas.

Nearly all DMs felt that farming had become more costly and less affordable; the rise in farming costs being most acutely felt around migration, indicating that this could be the push factor in migration. Nearly 62% felt that these costs had still not come down to affordable levels; specifically of chemical fertilisers. It is also reported that the practice of preparing indigenous fertilisers had decreased from 31% to 14% and farmers were more dependent on chemical fertilisers raising the cost of farming. This can be attributed to the aggressive marketing techniques of private sector agencies and inadequate safeguards at the government level.

### **6.8 Disasters and Inflation: Cause of Distress**

One third DMs reported a disaster, mostly floods, prior to migration that seriously affected their lives and livelihoods and was responsible for the decision to migrate. Two-fifth of DMs also reported inflation to be a key factor in the movement.

### **6.9 Changing Socio-Economic Infrastructure in Villages**

Villages and small towns are more accessible, better connected to road networks, and have better mobile outreach. However, there is very little improvement in drinking water or schooling facilities, which could be some push factors.

#### **6.10 Migrating Decisions**

Decision to migrate is almost always a personal one. Most migrate alone and live alone. Migrating with family is more common among DMs as distress affects an entire family. Family migrants preferred Faridabad over Delhi. Moving with friends is more common among AMs because of the comfort and safety value that moving as a group offers. AMs whose families join later mostly do so within 1 year, while DM families joined after more than a year; particularly in Delhi where migrants need more time to settle down, earn enough to support a family and organise a place to stay.

#### **6.11 Quality of Migrants Contributes to City Growth or Vice Versa**

There is no clear evidence that cities doing better attract better talent or better talent to some cities contributed to their growth; for example Haryana's growth story may be better than Delhi, yet the migration to Delhi is much higher. While growing cities do attract more migrants, the quality of migrants (skilled and unskilled, aspirants and distressed) does not necessarily contribute significantly to city growth; several other factors including the quality of infrastructure, access to municipal services, access to social services and quality of governance possibly have an impact on city growth.

#### **6.12 Coping in the Village and City**

Back at home, the younger migrated men are replaced by older/remaining men or women who take over the family livelihoods; increasing work burden of those who stay back. Whereas this could be empowering for AMs who now have a greater share in decision making, it is very challenging for DMs. Most migrants have friends or relatives in the cities that serve as safety nets; extended support in finding jobs, temporary shelter etc.

#### **6.13 Occupation and Income – Post Migration**

Post migration, the occupation profiles changes significantly. Employment among DMs increases and self-employment drops. AMs enhance skills from unskilled to semi-skilled and have 100% employment; with no self-employment indicating an averseness to risk taking. Skill gap between AMs and DMs is seen to widen. Employment becomes less wage-based, more full-time albeit contractual, remunerative albeit insecure in the informal /private sector. Jobs in the formal sector are very few, lengthening the distress span for DMs. More males have regular employment than women. Among DMs, while more women are in the informal sector, among AMs more males are in the informal sector. Most migrants do not get leave salary or any other form of insurance. Self employment is uncommon, just 14% DMs (none of the AMs) set up micro-enterprises with money borrowed from relatives or family savings.

None of the migrants have jobs when they first enter a city. AMs that move cities mostly ensure a job beforehand. In contrast, DMs however, remain relatively unstable and indicates a much longer period of distress. There could be a chicken and egg argument here; distressed migrants move into unstable jobs due to lack of skills or out of sheer desperation and unstable jobs means that it takes that much longer for the poor to build the skills that would help them to extricate themselves from the vicious cycle of poverty.

#### **6.14 Rising Incomes in Cities**

A T test confirms that average income of migrants increases significantly after migration; at Rs.4048 for DMs and Rs.6452 for AMs; reflecting an increase of 91.4% and 154% respectively suggesting that moving to the cities was a good decision for the families concerned. Modal incomes at Rs. 3000 for DMs were 50% more than pre migration incomes and for AMs at Rs. 4000, were double the pre

migration earnings. Incomes rise immediately after migration but increase significantly with increasing duration of stay. Delhi migrants have higher average incomes except for workers in commercial and industrial enterprises in Faridabad, who earn more than their counterparts in Delhi. More people in Faridabad earned higher wages in the range of Rs. 4000 as compared with those in Delhi at Rs. 3000. This difference was significant and corresponds with our earlier findings about more literate and skilled workers in Faridabad. Gap between the least and highest earning migrants show that while in Delhi it has doubled, for Faridabad it has quadrupled. The rising incomes are indicative of the opportunities that urban areas provide to migrants. Distressed female migrants reportedly earned more than men; the rise being 306% versus 131%. Male AMs, however, earned more on an average than females. Thus,  $t_{cal} > t_{\infty, 0.05}$ ; the null hypothesis  $H_0: \mu_1 = \mu_2$  is rejected hence the average income earned by migrants in Delhi differs significantly from those in Faridabad. Interestingly, average income earned by urban to urban migrants at Rs. 7933 was higher than incomes earned by rural to urban ones at Rs. 4569.

#### **6.15 Changing Asset Ownership**

Ownership of both economic and social assets increases after migration for both DMs and AMs. Increases ranged between 30% and 99% respectively for DMs and 51% and 33% for AMs and more for Delhi than Faridabad. These differences can be attributed to the lower starting point for DMs. Ownership of household assets declined because of high real estate values in cities that make land and housing unaffordable even with significant increases in incomes.

#### **6.16 Assimilation and Acculturation in Cities**

Assimilation in cities is through access to housing and other means of identification such as ration cards, voter ID cards and other documentation. Nearly 90% migrants could not get any ID cards since their migration 5 years ago. Of the few who did possess IDs, these were obtained fairly quickly, mostly within 2 months of relocation. Majority of AMs with cards got these only after one year.

About 60% migrants in Delhi live in rental accommodation as against 40% in Faridabad; either with relatives or in shared housing. AMs have purchased motorcycles etc. or use company taxis to get to work. The bulk of DMs in both cities walk to work; possibly because of low affordability and housing in close by slums. Even though half the migrants do not have identity papers, they do have access to social services in the city; schools and higher education institutions, government hospitals and health care centres.

#### **6.17 Changing Demand for Urban Infrastructure among Migrants**

The specific infrastructure requirements of migrants (distress and aspiration) vary in terms of their housing, banking, transport, education, health, water and sanitation etc. For instance, distressed workers who largely tend to move from one construction site to another or settle down in slums or vacant land close to their workplace may not put a great stress on sectors like transport, communication etc. However, their increased numbers create demand on amenities like water and sanitation, housing etc. The aspirant migrants on the contrary tend to create a completely different kind of demand on urban infrastructure. With the advent of IT and BT, the Bengaluru city which was traditionally known to be a shelter for middle income people (termed as middle income class city, Rao and Tiwari, 1979 and Sastry, 1994 as cited in Sastry, 2008, 11), has seen a marked change in the income distribution. The city now has high income group with salary levels comparable to developed countries and has resulted in high inequalities. They tend to earn high incomes and as a result of which the demand for consumer durables has increased substantially- tendency to own two to three cars, houses is a very common feature. The increased vehicular traffic in the city has been causing terrible traffic jams leading to fuel inefficiency and a prohibitive increase in travel time. The city which has been branded as an unplanned city (Heltzman, 2004) has had to take on many more challenges caused by the increased flow of IT and BT investments. Management of problems arising

on account of heavy demand on the already congested roads is best summarized by Sastry when he states "The immediate ramifications of such unplanned process has been that the city has no well planned access roads to several peripheral residential layouts developed by the BDA which can carry huge traffic generated between the city center and its so called planned residential layouts. This has ultimately resulted in frequent traffic jams, accidents etc., which in turn has led to instant transport management approach like conversion of several narrow roads as one-ways, widening of narrow roads etc., all these problems are mainly due to lack of a well conceived vision plan for the city prepared well in advance to absorb all future rapid urbanization shocks."(Sastry, 2008,7)

#### **6.18 Exit from Vulnerability: Affiliation and Support to Family at Home**

Nearly all DMs save up and remit money home to help family recover from hardship. Three-fourth of AMs also reported remittances. Average remittance by DMs is lower at Rs. 1953 than AMs at Rs. 2162. Across the two cities, migrants have better saving practice and lower remittance in Faridabad. AMs in Delhi saved more per month and invested more than in Faridabad. DMs spent less on routine expenses but more on housing, asset creation, debt repayment and obligatory social responsibilities. AMs on the other hand invested more in education of siblings. DMs are much less able to make investments because these instruments are less available to them and also because there is less left over after remittances. DMs are likely to have a much longer exit curve out of vulnerability. While half the AMs felt that they had better incomes, more assets and better housing than before, only 20% DMs felt the same.

#### **6.19 Implications for Urban Policy**

A broad range of factors influence migration and migrating decisions as is evident from the study. Employment opportunities in cities are increasing their attraction for the young people from rural areas, who are now better educated, better skilled and more informed. The presence of migrants in urban areas has implications for urban development. For example the urban development policy of Bengaluru city attains special importance in the context of the recent urbanization trends happening in the developing countries, as their urban centres are poorly planned and not geared up to meet the urbanization posed challenges. These include provision of water and sanitation, housing, solid waste management, transportation services etc. Bengaluru which has got into world ranking cities in many a respect has revealed very little preparedness, unlike many urban centers of the developed countries, in terms of absorbing the exodus population in the name of IT and BT. "The main problems that the city has been experiencing are rapid population growth, area expansion, unplanned growth and lack of adequate infrastructure and services to meet the demands of the city's functional specialization in terms of trade, industry and now IT and BT. (Sastry, 2008,14) The launching of Greater Bengaluru which includes objectives of improving the city's infrastructure, urban civic amenities is hoped to reduce the city's infrastructure woes in future.

Climatic factors linked to changing agriculture patterns or distress, are influencing migration to cities. Climate change is slow and only over time that farmers begin to feel its impact on production. The decision to migrate in this case is often pre-meditated, fully thought out and could be permanent. Disasters on the other hand are unexpected, families are unprepared for the devastation and the effect /asset loss can be enormous. Decisions to migrate in such events are generally rushed and may be temporary and reversible as situation improves in the home village. Rise in food-prices or inflation in the present context was attributable to the sudden spike in global oil prices followed by a rise in household expenditure and deepening of poverty. Price rise conditions could be temporary or permanent depending on their impact on the national economy and may result in planned migration, either brief or enduring.

Whatever be the cause of the decision to migrate, most families who are migrating to urban areas will stay back in their destination cities, some may move a bit, but very few will return to native homes. Over time efforts will be needed to integrate them into the city through provision of better

infrastructure and housing with services, ID proofs that shall enable them to access services in the city and to get fully assimilated and absorbed in the city.

Cities need to develop futuristic plans, not just on the basis of population projections but on the profile and nature of migrants that will come into the city. The plans must include infrastructure provisions with affordable housing to ensure that migrating citizens get both decent livelihoods and decent spaces to live in. Over time as the profile of migrants changes from those that are poor and unskilled to those that are aspiring and skilled or those that have become suddenly vulnerable due to disasters and distress factors.

India's urban development Mission; Jawaharlal Nehru National Urban Renewal Mission (JNNURM) even as it attempts to unpick the urban mess from unplanned growth, must also restructure the proposed urban planning frameworks to in parallel plan for the development of spaces and livelihoods for new migrants.

However, any meaningful corrective action is possible only with a proper statistical database regarding the size and growth of population with much lesser time intervals than that provided by the decennial census, given the large-scale movement of people from one place to another. Since migrants constitute a sizeable share in the total city's population it is very important to have frequent updates on the size and nature of migration, and the government has to put in place a mechanism to regularly collect this information and use the same for urban development policy formulation purposes.

## Annexure

### Annexure 1 Questionnaire for Primary Survey

The New Economic Context and Changing Migration Patterns in India  
Questionnaire

Form No. फॉर्म संख्या							
Date of Survey सर्वेक्षण का तारीख							
Name of Surveyor सर्वेक्षण कर्ता का नाम							
Name of Respondent: उत्तरदाता का नाम							
Age उम्र							
Religion (tick below) धर्म (चिन्ह लगायें)				Caste (tick below) जाति (चिन्ह लगायें)			
Hindu हिन्दू	Muslim मुस्लिम	Sikh सीक्य	Christian इसाई	SC अनुसूचित जाति	ST अनुसूचित जनजाति	OBC पिछड़ा वर्ग	General सामान्य
Sex (tick below) लिंग (चिन्ह लगायें)				Male पुरुष		Female महिला	

#### 1. General background सामान्य जानकारी

##### 1.1 Address पता

Present Address वर्तमान पता	Domicile स्थायी पता/ मूल निवास
	a. Home Village/ Town गाँव/शहर:
	b. District जिला:
	c. Home State राज्य:
Year of migration from village गाँव से प्रवास का साल	

##### 1.2 Household Characteristics परिवार संबंधित जानकारी (मूल निवास)

Family Type परिवार का प्रकार	Nuclear एकल परिवार	Joint संयुक्त परिवार				
Family Details पारिवारिक विवरण (मूल निवास)						
Name of family Members परिवार के सदस्यों का नाम	Relationship with the Respondent उत्तरदाता से सम्बन्ध	Age उम्र	Sex लिंग	Education शिक्षा	Occupation (Indicate even if women/children are working in family occupations without income) कामकाज/ व्यवसाय (यदि महिलाएं व बच्चे परिवार में ही बगैर आमदनी (मजदूरी) के काम करते हैं तो उनका भी उल्लेख करें)	Income (Per month in Rs.) आय (हर महीने रुपये में)



**2. Foot printing Migration and Migration Details** प्रवास पदचिन्ह एवं विवरण

**2.1 Foot Printing Migration** प्रवास पदचिन्ह

	Town/City 1 शहर 1		Town/City 2 शहर 2		Town/City 3 शहर 3		Town/City 4 शहर 4		Town/City 5 शहर 5	
Name of the city/towns migrated in serial order? जिन जिन शहरों में प्रवास के दौरान रहे उनके नाम (सूचि में)										
Year of Migration YYYY प्रवास का वर्ष										
Why did you choose to move to this city/town? आपने यह शहर क्यों चुना?										
Occupation in the new town/city at the start? नए शहर में शुरुवाती दिनों में क्या काम किया?										
When you moved to the town/city, did you have a job? (yes/no) शहर आने के लिए जब आपने गाँव छोड़ा, तब क्या आपके पास काम था? (हाँ/ना)										
If no, how long did it take to find a job? In months यदि नहीं, तो नौकरी ढूँढने में कितना समय लगा (महीने)										
How did you find the first job? आपने पहली नौकरी कैसे प्राप्त की?										
Reasons for leaving the city to go to the next. अगले शहर में प्रवास का कारण बताइये.										
	Initially शुरुवाती	Finally अंत में	Initially शुरुवाती	Finally अंत में	Initially शुरुवाती	Finally अंत में	Initially शुरुवाती	Finally अंत में	Initially शुरुवाती	Finally अंत में
Was your income on daily base (DB) or monthly base (RB)? आपकी आय दिसाड़ी (DB) में है या मासिक वेतन (RB) है?										
Was your job in the informal sector (IS) or formal sector (FS)? आपकी नौकरी औपचारिक (IS) या अनौपचारिक (FS) क्षेत्र में है?										
Monthly Income in the first job/last job before next migration अगले प्रवास से पहले आपकी मासिक आय (पहले नौकरी में/आखरी नौकरी में) कितनी ?										

**2.2 Why did you**

For education शिक्षा के लिए	For opp बेहतर
Health care बेहतर स्वास्थ्य के लिए	
Land was mortgaged जमीन गिरवी पट्टी है	

**2.3 Who decide**

Yourself स्वयं	Spous पत्नी
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**2.4 Did you mig**

Alone अकेले	With Parents माता-पिता के साथ
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**2.5 If migrated alone, who managed/s the work back at home (farming/cattle care/household work)?**

यदि अकेले आये हैं तो घर पर काम अब कौन सम्हालता कौन है? (खेती/पशुपालन/घर का काम)

Father पिता	Brothers भाई	Brothers in law साला	Wife पत्नी	Given on contract ठेके पे दिया है	Any other (specify) अन्य (विवरण दें)	
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**2.6 Has your family also moved in to the city? क्या आपका परिवार शहर में आ चुका है? Yes हाँ / No ना**

When did your family move? (Duration) आपके आने के कितने दिनों बाद आपका परिवार आया? (अवधि)	
Why did you decide to move them to the city? आपने परिवार को शहर लाने का निर्णय क्यों लिया?	

Did y  
जिस  
What  
in he  
city?  
लिए  
की?

**2.7 Do you have the following documentation for the city? (Record information only for the migrant and not for other family members)** आपके पास क्या इस शहर के जरूरी दस्तावेज (नीचे दिए हुए) मौजूद है? (खाली उत्तरदाता के बारे में ही जानकारी लिखिए न की अन्य परिवार के सदस्यों के बारे में)

	Ration card राशन कार्ड	Voter card पहचान पत्र	Driving license डाइविंग लाइसेंस	Passport पासपोर्ट	Pan card पैन कार्ड	Any other (specify) अन्य (विवरण दें)
Yes हाँ / No ना						
How did you procure these? ये दस्तावेज आपको कैसे मिला?						
How long did it take you? इनको प्राप्त करने में कितना समय लगा?						
What difficulties did you face in accessing these? इनको प्राप्त करने में क्या क्या परेशानी हुई?						

### 3. Factors influencing Migration प्रवास को प्रभावित करने वाले कारक

#### a. Individual Level व्यक्तिगत स्तर पर

3.1 Land ownership in village (if doesn't own land at village go to Q 3.2) गाँव में ज़मीन की मिलकियत (अगर ज़मीन नहीं है तो अगला सवाल पूछें)

Did you own land in the village? क्या आपके पास ज़मीन थी?	Yes हाँ	No ना
If yes, area of land (in Acres) यदि हाँ तो कितनी? ( एकर में)		
Is it arable? क्या ज़मीन उपजाऊ है?	Yes हाँ/ No ना	
How much produce does it generate annually? सालाना कितना उत्पादन होता है?	In Rs. (₹.)	
Is any part of the land mortgaged? ज़मीन का कोई हिस्सा क्या गिरवी है?	Yes हाँ/ No ना	If yes, how much? यदि हाँ, तो कितना?

#### 3.2 Asset ownership in village at time of migration /now; use Y/N

सम्पत्ति का विवरण: पलायन से पहले/ अब: हाँ/ना बताएं

Assets सम्पत्ति	Before migration गाँव छोड़ने से पहले	Now अब	Assets सम्पत्ति	Before migration गाँव छोड़ने से पहले	Now अब
Livestock पशु			Tractor ट्रैक्टर		
Bore well /open well for irrigation सिंचाई के लिए बोरवेल/ कुआँ			Telephone टेलीफोन		
Cooking Gas रसोई गैस			Two wheeler दुपैया वाहन		
Radio रेडियो			Cycle साइकल		
Colour TV टी. वि.			Auto Rickshaw ऑटो रिक्शा		
Cable/ DTH Connection केबल/डी.टी.एच कनेक्शन			Cycle Rickshaw साइकल रिक्शा		
DVD Player डी.वि.डी.			4 wheeler		
Fridge फ्रिज			Rheri/cart रेडी		
Cooler कूलर			Shop दूकान		
Computer कंप्यूटर			Kiosk खोके		
Mobile phone मोबाईल फोन			Any other (specify) अन्य (विवरण दें)		
Tools of work such as carpentry, sewing machine, motor mechanic equipment, construction equipment etc. कार्य हेतु जरूरी औज़ार (बड़ाई के औज़ार सिलाई मशीन इत्यादि)					

#### 3.3 Loan Details लोन संबंधित जानकारी

Was there any family debt at the time of your departure? आपने जब घर छोड़ा तब क्या आपके परिवार के ऊपर कोई कर्जा था?	Yes हाँ	No ना
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If yes, what was the purpose, amount of loan etc. (Families may have taken loan for Land, Housing, Marriage, Occupation, Health, Household Assets/other, Migration. Any other reasons, please check for all loans and specify) यदि हाँ तो वो क्यों लिया था, कितना लिया इत्यादि का विवरण दें (परिवार ज़मीन, मकान, शादी, काम काज, स्वास्थ्य, सम्पत्ति, प्रवास व अन्य अनेक कारणों के लिए लोन ले सकती हैं. हर तरह के कारणों को जानने की कोशिश करें और लिखें)

Purpose of Loan लोन का उद्देश्य	Amount लोन राशि	Source स्तोत्र	Interest (%) ब्याज (%)	Repayment Plan/ Installments वापसी की शर्तें /किश्त	Debt remaining at present वकाया कर्जा	How much have you contributed to loan repayment लोन चुकाने में आपका कितना योगदान रहा?

### 3.4 Factors In Migration प्रवास के कारक

**3.4.1 Climate Changes;** Please recall and tell what changes have been there in your village? जलवायु परिवर्तन (याद करके बताइए आपके गाँव में क्या बदलाव आये हैं?)

Climatic Condition जलवायु स्थिति	What type was it 5 years before migration गाँव छोड़ने के 5 साल पहले कैसा था	At the time of migration गाँव छोड़ने के समय कैसा था	Now अब कैसा है
<b>Rainfall</b> (the discussion should be around any deviation from the normal weather conditions) बरसात (यदि सामान्य चक्र में बदलाव हुआ है तो उस पर चर्चा करें )	रहने		
<b>Timing</b> समय: <b>Seasonally</b> मौसमी (S), <b>sporadic</b> अनियमित (Sp), <b>scarcely</b> कभी कभी (Sc)			
<b>Amount</b> मात्रा: <b>Very High</b> बहुत ज़दा (VH)/ <b>high</b> ज़दा (H)/ <b>Average</b> औसतन (A)/ <b>low</b> कम (L)/ <b>very low</b> बहुत कम (VL)			
<b>Duration</b> समयावधि			
Only for Land Owners केवल उनके लिए जिनके पास जमीन है			
<b>Quality of Soil</b> (the discussion will be around deterioration in the quality) मिट्टी की गुणवत्ता (मिट्टी की उर्वरकता में कमी के ऊपर चर्चा करें )			
<b>Cost of farming</b> (on average; whether increased, decreased, remained similar etc.) खेतीबाड़ी पर खर्चा (लगभग उतना ही है, बढा है, पहले के समान है)			
<b>Availability and cost of fertilizers</b> खाद की उपलब्धता व उस पर खर्चा			
<b>Access to agricultural water supply</b> खेतीबाड़ी के लिए पानी की आपूर्ति			
<b>Prices offered at the market for the crop</b> (if cultivated more than one crop, then please specify average price for the main crop cultivated) फसल का बाजार मूल्य (यदि एक से अधिक फसल उगाते हैं तो मुख्या फसल का औसत बाजार मूल्य बतायें)			
<b>Agriculture related Govt. welfare scheme availed vis-à-vis available</b> (names of the schemes of which the respondent is aware of and whether he has availed any of them) सरकारी जन कल्याण योजनाये (उत्तरदाता को जिन योजनायों की जानकारी है उन्हें लिखे एवं क्या उसने किसी योजना का लाभ उठाया है?)			

**3.4.2 Disasters: Have there been any disasters (natural /socio-economic) in your village** आपदा: आपकी गाँव में पिछले कुछ सालों में कोई आपदा (प्राकृतिक व सामाजिक-आर्थिक) आई थी?

Disasters आपदा	Y/N	Year of Disaster आपदा का साल	Impact on your livelihoods आजीविका पर असर	Did this have anything to do with your decision to leave the village? If yes, explain. क्या आपका गाँव छोड़ने का एक कारण ये भी था? अगर हाँ तो स्पष्ट करें
Floods बाढ़				
Drought सूखा				
Hail storms ओला वृष्टि				
Cyclone and Storm Surges आंधी-तूफान				
Salinity intrusion झिटटी का खरापण				
Sudden death in Family परिवार में अचानक मृत्यु				

Riots /social conflicts दंगे/सामाजिक विवाद				
Shutting down of factories etc. in the village गाँव में फैक्ट्री व अन्य कार्य क्षेत्र बंद हो जाना				
Property disputes/losses जमीन जायदाद के लिए विवाद/ नुक्सान				
Earthquake भूकंप				
Any other (specify) अन्य (विवरण दें)				

**3.4.3 Price Rise: In the past 2 years, there has been increase in prices of essential commodities. Did you feel the impact of the price rise? मूल्य वृद्धि: पिछले 2 सालों में आवश्यक वस्तुओं की मूल्य बहुत बढ़ गया है. आप पर इसका क्या प्रभाव पड़ा?**

	What impact did it have on the cost of living in the new city? नए शहर में रहने के खर्च पे इसका क्या असर पड़ा?	What impact has it had on the cost of agriculture in your village? आपके गाँव में खेतीबाड़ी के खर्च पे इसका क्या असर पड़ा?
Rise in food prices खाद्य पदार्थ की मूल्य वृद्धि		
Rise in fertilizer prices खाद की मूल्य वृद्धि		
Rise in seed prices बीजों की मूल्य वृद्धि		
Rise in petrol/diesel /transport पेट्रोल/डीजल व यातायात का मूल्य वृद्धि		
Rise in other household expenses घरेलु खर्च में वृद्धि		
Did the rise in the price levels have anything to do with your decision to leave the village? क्या आपका गाँव छोड़ने का एक कारण ये भी था?	Yes हँ No ना	If yes, explain. अगर हँ तो स्पष्ट करें

**3.4.4 Job Opportunities in the village then /now? गाँव में रोजगार के अवसर (प्रवास से पहले एवं अब)**

5 years before 5 साल पहले	Likely Incomes (per month) आय (प्रति माह)	When you migrated जब आपने गाँव छोड़ा	Likely Incomes (per month) आय (प्रति माह)	Now अब	Likely Incomes (per month) आय (प्रति माह)

Access to health services स्वास्थ्य सेवायों तक पहुँच				pper में

	Situation 5 years before migration प्रवास से साल पहले की स्थिति	At time of migration प्रवास के समय	Now अब
Access to Transport यातायात की साधनों तक पहुँच			
Railways रेलवे			
Road सड़क			

### 3.6 Educational opportunities in your village then / now? गाँव में शिक्षा के अवसर गाँव छोड़ने से पहले/ अब

Educational Opportunities (please write the options available) शिक्षा के अवसर (कृपया उपलब्ध विकल्पों का उल्लेख करें)	Situation 5 years before migration प्रवास से साल पहले की स्थिति	At time of migration प्रवास के समय	Now अब
Primary School प्राइमरी स्कूल			
Secondary School सेकेंडरी स्कूल			
Higher Secondary Schools हाइयर सेकेंडरी स्कूल			
Graduation Colleges डिग्री कॉलेज			
Technical Colleges (ITI) टेक्नीकल कॉलेज			
Polytechnic colleges for Women पॉलिटेक्निक कॉलेज (महिलाओं के लिए)			

## 4. Current Livelihood and Family Profile वर्तमान आजीविका व पारिवारिक विवरण

### 4.1 Details of family members residing with you now आपके साथ रहने वाले परिवार के सदस्यों का विवरण

Name of family Members परिवार के सदस्यों का नाम	Relationship with the Respondent उत्तरदाता से सम्बन्ध	Education levels/ indicate if still in school for young children <i>Mention only if there is any additional qualification attained</i> शिक्षा के स्तर उल्लेख करें यदि छोटे बच्चे स्कूल जाते हैं उल्लेख करें यदि कोई अतिरिक्त शिक्षा ग्रहण किया है	Occupation (Indicate even if women/children are working in family occupations without income) <i>Mention only if there is any deviation from what the person used to do previously</i> व्यवसाय/कामकाज उल्लेख करें यदि महिला एवं बच्चे बगैर आमदनी के पारिवारिक व्यवसाय में काम करते हैं यदि पहले के काम और वर्तमान काम में बदलाव हुआ है तो उल्लेख करें	Income (Per month in Rs.) <i>Mention only if there is any deviation</i> आय (प्रति माह) अगर कोई बदलाव है तो ही उल्लेख करें

**4.2 Family remaining in the village now (only the immediate members may be listed with details) अभी गाओं में रह रहे परिवार के सदस्यों का विवरण**

Name of family Members परिवार के सदस्यों का नाम	Relationship with the Respondent उत्तरदाता से सम्बन्ध	Occupation (Indicate even if women/children are working in family occupations without income) <i>Mention only if there is any deviation from what the person used to do previously</i> व्यवसाय/कामकाज उल्लेख करें यदि महिला एवं बच्चे बगैर आमदनी के पारिवारिक व्यवसाय में काम करते हैं यदि पहले के काम और वर्तमान काम में बदलाव हुआ है तो उल्लेख करें	Income (Per month in Rs.) <i>Mention only if there is any deviation</i> आय (प्रति माह) अगर कोई बदलाव है तो ही उल्लेख करें

**4.3 Your current job /work profile आपका वर्तमान कार्य/नौकरी का प्रकार**

<b>A. Type of occupation कामकाज का प्रकार</b>	
Are you employed or self employed? क्या आप नौकरी करते हैं या स्वयं का व्यवसाय हैं?	
If employed, is this in the government or the private sector? यदि नौकरी करते हैं तो क्या वो सरकारी है या गैर सरकारी ?	
Is it regular employment or contractual? यह नियमित रोजगार है या ठेके पे?	
Do you get leave salary, insurance covers etc. as part of your job? क्या आपको अपनी नौकरी में छुट्टी का वेतन, बीमा आदि सुविधाएं मिलती हैं?	
Where do you see yourself 5 year from now? आज से 5 साल बाद आप अपने आप को कहाँ देखना चाहते हैं?	
What incomes do you expect to earn five years from now? आज से साल बाद आप कितनी आमदनी की अपेक्षा रखते हैं?	
<b>B. How did you get the job? आपको यह नौकरी कैसे मिली?</b> (Through a contractor (C) or through job application (JA)? Through an agency (A)? ठेकेदार से या नौकरी के लिए अर्जी (JA) दे कर? या कोई एजेंसी से (A)?)	
Did you go through any of the job sites on the computer? क्या कंप्यूटर में किसी जॉब साईट के माध्यम से नौकरी खोजी ? (Yes/No)	
What was your experience with the contractor, did you have to pay the contractor/agency money for the job? (Yes/No) ठेकेदार के साथ आपका अनुभव कैसा रहा? क्या आपको नौकरी के लिए ठेकेदार/एजेंसी को पैसे देने पड़े? (हाँ /ना)	
If yes, how much? यदि हाँ तो कितना?	

<b>C. How many jobs have you changed in the past 1 year?</b> पिछले एक साल में आपने कितने नौकरीयाँ बदली हैं?	
Are these because you wanted to change them or because you were asked to go? आपको क्या जाने के लिए बोला गया था, या आपने अपनी मर्जी से नौकरी बदली थी?	
<b>D. What are your job timings?</b> आपके नौकरी की समयसीमा कैसी हैं?	
How do you commute to your work place? आप काम पे कैसे जाते हो?	
If you own the car/motor bike, is it through financing or down payment? अगर आपके पास गाड़ी/मोटर साइकल हैं तो क्या वो किशतों पे लिया हैं या पूरे पैसे दे कर?	
Do you live by yourself or share a flat with someone or live at home? क्या आप इस शहर में अकेले किराये पे रहते हैं या किसीके साथ सांझेदारी में रहते हैं या किसी घर में रहते हैं	
How much do you spend on your food, rent, etc. per month प्रति माह आप रहने खाने पे कितना खर्च करते हो?	
Have your expenses been affected by the rise in prices/inflation? क्या मूल्य वृद्धि से आपके इन खर्चों पे कोई असर पड़ा हैं?	
<b>E. Did you invest in housing through bank loans in the city?</b> क्या आपने बैंक लोन के जरिये मकान पे निवेश किया हैं?	
If yes, what is your monthly installment? यदि हाँ, तो मासिक किशत कितना हैं?	
<b>F. Have you lost your job recently?</b> क्या हाल में (पिछले 3 महीनो में) आपने अपनी नौकरी खोई हैं? हाँ/ना यदि हाँ, तो क्यों Why?	
Is it because your company did not have more contracts? क्या इसलिये, की आपकी कंपनी के पास परियास काम नहीं था?	
If you have taken loans for housing/cars etc. are you able to pay back these loans now? अगर आपने घर या गाड़ी के लिए लोन लिया हे, तो क्या आप अभी किशत चुकाने में सक्षम हैं? (हाँ/ना)	
How has this affected your savings? इस परिस्थिति ने आपकी बचत में कैसे असर डाला हैं?	
<b>H. For self-employed people स्वव्यावसायी व्यक्तियों के लिए</b>	
What is the micro /enterprise that you have? आप कौनसा सूक्ष्म उद्ध्यम चलाते हैं?	
How did you start it? इसकी शुरुवात कैसे की?	
How much money was invested to set it? उद्ध्यम को शुरु करने के लिए कितने पैसे निवेश किये?	
How did you arrange the money? Loan, personal savings, sale of land etc. आवश्यक रुपयों का इन्तजाम कैसे किया? ऋण, व्यक्तिगत बचत, भूमि बेच कर आदि	
How much money do you need for recurring expenses? व्यवसाय के नियमित खर्चों के लिए कितने पैसों की जरूरत पड़ती हैं?	
Do you encounter police, local government officials in running your enterprise? आपना उद्ध्यम चलाने के लिए क्या आपको पुलिस व स्थानीय सरकारी अधिकारियों से सामना होता हे?	
How often? कितनी बार?	



For what reasons? किस कारण?	
How do you resolve it? उसका निपटारा कैसे करते है?	
Do you have access to the following basic services if required for your enterprise? आपका उद्ध्यम चलने के लिए क्या आपकी निम्न आधारभूत सुविधायों तक पहुँच है? Power supply बिजली Water supply पानी Transportation यातायात Roads सड़क Sanitation (toilets, drains etc.) शौचालय व नालियां	
<b>I. Questions for all सभी के लिए लागू प्रश्न</b>	
How much money do you save every month? हर माह आप कितनी बचत करते हैं?	
How much of your income do you send back home? आपनी आमदनी में से कितना पैसा आप घर भेजते हैं?	
What does your family do with the money that you send to them? आप जो पैसा घर भेजते हैं, आपका परिवार उससे किया करता है? For day to day household expenditure रोज मर्रा के घरेलु खर्च Improve housing मकान का सुधार Repay loans ऋण चुकाने के लिए Use for marriages and events शादी व अन्य अवसरों पे Pay for education of other siblings अन्य भाई बहनेो के पढाई पर Any other अन्य	
What do you do with your savings? आप अपने बचत से क्या करते हैं?	
Do you invest your savings? क्या अपनी बचत को निवेश करते है? हाँ/ना	
Have you sent money back to family for emergency reasons in the past 1 year? Y/N पिछले साल में क्या आपने किसी परिवारिक विपत्ति के कारण घर में पैसे भेजे हैं? हाँ/ना How much? (in Rs.) यदि हाँ तो कितना? What was the emergency? क्या विपत्ति थी? How did you arrange the money? भेजने के लिए पैसों का इन्तेजाम कैसे किया?	
How do you send the money back? आप घर पैसा कैसे भेजते हो? Banks बैंक /Post offices डाकखाना / person from your native place अपने गाँव के किसी व्यक्ति के हाथ	
How much debt do you have at present? वर्तमान में आपके ऊपर कितना कर्जा है?	
Do you have access to the following social services in your neighborhood? क्या आपके आसपास इन सामाजिक सुविधायों तक आपकी पहुँच है? (Y/N हाँ/ना) Primary Schools प्राईमरी स्कूल High schools हाई स्कूल Colleges कॉलेज Higher education professional institutions तकनिकी उच्च शिक्षा संस्थान  Government Hospitals सरकारी हॉस्पिटल Private Hospitals प्राइवेट हॉस्पिटल Health care centre हैल्थ केयर सेंटर	

Dispensaries डिस्पेन्सरि Any Other (specify and mention Y/N) अन्य (स्पष्ट करें व हॉ/ना बताएं)	
<b>J. What schools do your children study in? आपके बच्चे कैसे स्कूल में पढ़ते हैं?</b> Private प्राइवेट (P); Government सरकारी (G)	
Have you benefited from any social welfare scheme? (Y/N) क्या आपने किसी जनकल्याण योजनाओं से लाभान्वित हुए हैं?	
If yes, specify? अगर हाँ उल्लेख करें (Ladli लाडली, pension पेंशन, resettlement land घर के लिए जमीन, low cost housing कम लागत का घर, health insurance स्वास्थ्य बीमा, ration cards राशन कार्ड etc आदि.	

#### 4.4 Housing in the present city वर्तमान शहर में घर

Do you own the house/land where you live? आप जहाँ रहते हैं, वो घर/जमीन क्या आपका है? (हॉ/ना)	
Do you live in shared accommodation? (Y/N) आप क्या साझेदारी में रहते हैं? (हॉ/ना) If yes, how many people share it? अगर हाँ तो कितने लोग रहते हैं? What is the arrangement? रहने की क्या व्यवस्था है?	
Area/size of accommodation घर का आकार एवं माप	

#### 4.5 Current Loan Profile (Please specify the purpose clearly for which loan is taken e.g. marriage, occupation, health, assets etc.) वर्तमान ऋण की स्थिति (कृपया लोन लेने का कारण स्पष्ट करें: शादी, कामकाज/व्यवसाय, स्वास्थ्य, संपत्ति आदि)

Purpose of Loan लोन का उद्देश्य	Amount (in Rs.) लोन राशि (₹.)	Source स्तोन	Interest (%) ब्याज (%)	Installments (in Rs.) किश्त (₹.)

5 **Looking Ahead: भविष्य की ओर**

5.1 **How often do you go back to your home? कितने दिनों में आप घर वापस जाते हैं?**  
**When? (Please tick applicable option) कब? (नीचे दिए गए विकल्पों से चुने)**

Festivals त्यौहार पर	Once in a year साल में एक बार
Marriages/emergencies शादी या कोई विपत्ति के दौरान	Sometimes कभी कभी
Illness of family members परिवार के सदस्यों की बीमारी में	Not fixed तय नहीं
Seasonally (when there is some farm work) मौसमी (जब खेती का काम ज्यादा हो)	Any other, specify यदि अन्य है तो स्पष्ट करें

5.2 **Supports to Others to Migrate** अन्य लोगों को प्रवास करने में मदद

5.2.1 **Who else has joined you from your family /friends/neighbours/villagers in the city? (List all)**

आपके परिवार/दोस्त/पड़ोसी/गांववालों में से कौन कौन इस शहर आपके बाद आया है? (सबका उल्लेख करें)

Name नाम	Relationship with the Respondent उत्तरदाता से सम्बन्ध	Date of joining MM/YYYY आने की तिथि	Reason for migration प्रवास का कारण	Current occupation वर्तमान व्यवसाय	Approximate Income औसत आमदनी	What assistance did you provide in setting him/her? उन्हें बसाने में आपने किस प्रकार मदद की?

5.3 **Do you think your status has improved by coming to the town? How? क्या आपको लगता है की शहर आने के बाद आपके जीवन स्तर में सुधार हुआ है?**

(Please tick against the correct option and explain how) (कृपया सही विकल्पों के सामने चिन्ह लगाये व विवरण दें)

Wealthier समृद्ध	
More educated and better informed शिक्षित एवं अधिक जागरूक	
More assets अधिक संपत्ति	
Better housing बेहतर घर	

Better dressed बेहतर पहनावा	
Children are better educated and English speaking बच्चे अधिक पढ़े-लिखे एवं अंग्रेजी बोलने वाले	
Any other specify अन्य, स्पष्ट करें	

5.4 How do you rate the following facilities in the city/peripheral towns vis-à-vis small town/village? (tick against the options below) आपके गाँव के तुलना में इस शहर/आस-पास के शहरों में उपलब्ध निम्न सुविधाओं का आप कैसे आंकलन करेंगे? (सही विकल्प पे चिन्ह लगायें)

Infrastructure Facilities इन्फ्रास्ट्रक्चर की सुविधाएँ	
Excellent उत्कृष्ट	Poor खराब
Very good बहुत अच्छा	Average सामान्य
Good अच्छा	
Schooling Facilities पढाई-लिखाई की सुविधाएँ	
Excellent उत्कृष्ट	Poor खराब
Very good बहुत अच्छा	Average सामान्य
Good अच्छा	
Health Facilities स्वास्थ्य सुविधाएँ	
Excellent उत्कृष्ट	Poor खराब
Very good बहुत अच्छा	Average सामान्य
Good अच्छा	
Other Facilities अन्य सुविधाएँ	
Excellent उत्कृष्ट	Poor खराब
Very good बहुत अच्छा	Average सामान्य
Good अच्छा	

5.5 How do you rate the City/peripheral town to pursue your aspirations? आपनी आकांक्षाओं की पूर्ति के लिए इस शहर/आस-पास के शहर के योगदान को कैसे आँकेंगे?

Excellent उत्कृष्ट
Very good बहुत अच्छा
Good अच्छा
Average सामान्य
Poor खराब

5.6 Do you/your children would like to return to your native place? अपने मूल निवास को लौटना चाहेंगे?	Yes हाँ	No ना
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If Yes: When do you plan to go back? (narrate) अगर हाँ, तो कब तक जाना चाहेंगे? (विस्तार से बताएं)
If No: Please give your reasons: (narrate) अगर नहीं तो उसका कारण बताएं: (विस्तार से )

5.7 What do you think should be done to improve the city for people who come to it from villages? प्रवासी लोगों के लिए इस शहर को बेहतर बनाने के लिए आपकी क्या सुझावों हैं?

## Annexure 2

We assume that the samples are independent and the sample variances are unequal for applying the test. t statistic is defined as:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{s^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$s^2 = \frac{\sum_{j=1}^{n_1} (x_j - \bar{x}_1)^2 + \sum_{i=1}^{n_2} (x_i - \bar{x}_2)^2}{n_1 + n_2 - 2}$$

Where  $\bar{x}_1$  and  $\bar{x}_2$  are the sample means,  $s^2$  is the pooled sample variance and  $n_1$  and  $n_2$  are the sample sizes and  $t$  is a Student's  $t$  quantile with  $n_1+n_2-2$  degrees of freedom.

The Chi-square test enables to compare the distribution of classes of observations with an expected distribution. Pearson's Chi-Square Goodness of fit Test Statistic is:

$$T = \sum_{j=1}^c \frac{(O_j - E_j)^2}{E_j}$$

where  $O_j$  are observed counts,  $E_j$  are corresponding expected count and  $c$  is the number of classes for which counts/frequencies are being analysed.

### Annexure 3

#### **Logistic Regression:**

Logistic regression is a nonlinear regression model when response variable is qualitative (E.g. 2 possible outcomes like Distress and Aspiration).

Response Function for Binary Outcome:

$$\begin{aligned} Y_i &= \beta_0 + \beta_1 X_i + \varepsilon \\ E(Y_i) &= \beta_0 + \beta_1 X_i \\ P(Y_i = 1) &= \pi_i \\ P(Y_i = 0) &= 1 - \pi_i \\ E(Y_i) &= 1(\pi_i) + 0(1 - \pi_i) = \pi_i \\ E(Y_i) &= \beta_0 + \beta_1 X_i = \pi_i \end{aligned}$$

#### **Variables:**

**Dependent Variable** – Reason for Migration (Aspiration = 0, Distress = 1)

**Independent Variable** – Skill (Skilled = 1, Unskilled = 0), Education\_1 (Illiterate = 1, Other = 0), Education\_2 (Elementary = 1, Others = 0), Age (0-29 = 0, 30 and above = 1), Cast\_SC (SC and ST = 1, Others = 0), Cast\_OBC (OBC = 1, Other = 0), Income 1<sup>st</sup> group (1<sup>st</sup> group = 1, others = 0), Income second group (2<sup>nd</sup> group = 1, others = 0), Income third group (3<sup>rd</sup> group = 1, others = 0)

#### **Ordered Logistic Regression:**

If a dependent variable has more than two categories and the values of each category have a meaningful sequential order where a value is indeed 'higher' than the Previous one, then one can use ordinal logistic regression.

#### **Variables:**

**Dependent Variable** – Income in four Groups

**Independent Variable** – Reason for Migration (Aspiration = 0, Distress = 1), Land Ownership (Yes = 1, No = 0), Skill (Skilled = 1, Unskilled = 0), Education\_1 (Illiterate = 1, Other = 0), Education\_2 (Elementary = 1, Others = 0), Cast\_SC (SC and ST = 1, Others = 0), Cast\_OBC (OBC = 1, Other = 0).

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