

Chapter 1

1.1 STATEMENT OF THE PROBLEM

The social and cultural fabric of a place is textured with the mixing up of several diverse cultures, customs, traditions, practices, and belief systems brought about by migration and settlement of people from across the world over hundreds of years. Thus, migration is an age old concept and nature welcomes migration as well. We see Migration among birds and animals too. Human migration can be traced back to the time of human evolution when humans migrated across the globe in search of food, good weather, shelter and safety. However, in the present times such migration takes place for motives such as job opportunities, job relocation, entertainment, over population etc. Migration refers to a situation where people move from one place to another individually or in groups in search of livelihood or better living conditions with an intention, to settle down in a new place permanently or temporarily. This movement involves an interval of time. Migration takes place in different circumstances and different groups of people. We also get to see migration as a practice among various tribes of India (eg. The Gujjars'), who migrate with their cattle from low lands to higher elevations to escape heat and find forage. In the North Eastern part of India, various hill tribes involved in shifting agriculture/Jhoom cultivation, practiced migration in groups. Nomadic movements are normally regarded as temporary migration as such type of migration is seasonal in nature and there is no intention to settle down in the new place. Seasonal human migration is very common in agricultural cycles. Migration can therefore, be defined as a physical movement of humans individually or in groups from one place to another in search of better amenities or living conditions with an intention of temporary or permanent settlement.

Migration has taken place at all times and in various circumstances. It has been regional, national, tribal, class and individual. The causes of migration are also manifold such as political, economic, religious and also love for adventure. The causes and consequences of migration have been the fundamentals for various studies in social science. Going back in history we see that migration under the form of colonization has transformed the world (eg. the settlement of America). It is the most powerful factor in social adjustment (eg. the growth of urban population). Hence migration may be discussed as a natural function of social development (Saiyangoku, 2011). Way back in the 19th century the growth of cities in Shanghai and Chicago was mainly due to rural urban migration

An overview of the contemporary literature on human migration in the Asian countries shows that this region is experiencing rapid urbanization and migration that would continue in the near future. Rural population is expected to decline during 2000-2030. While urban population is expected to double during the same period. Therefore, the 21st century will be the Asian urban century (Mohan, 2006). Several countries in Asia are noted to be experiencing rapid growth in the mobility of people from rural to urban areas, increasing the urban population since the late seventies and thus the continent supports half of the world's urban population. Projections have been made that this growth will accelerate in the next few decades which would double Asia's urban population during 2000-2030, its share in global urban population going up from 48% to 54% (United Nations 2005)

U.S and most of the European nations began to urbanize heavily in the 19th century. In 1800 only about 5% of the US population lived in cities. By the late 1900's this number increased up to 80%. Rural Urban migration continued to spread globally. Today more than half of the world's population lives in cities. (chegg.com)

Migration or movement of people from one place to another in search of employment opportunities or better amenities is either international (among nations) or internal (within the country). The Indian census operation classified internal migration as Inter-state, Inter-district and Intra-district.

Migration can be forced, voluntary, permanent or temporary. At the same time migration can have various flow patterns. There can be the following possible movements of migrants: urban to urban, rural to urban, rural to rural and urban to rural. The first two flow patterns viz, urban to urban (movement of people from one advanced urbanized centre to another advanced urbanized centre) and rural to urban migration (movement of people from the countryside to the city areas) are considered to be more significant as they show a marked impact on urbanization. The flow of migrants from the urban to rural areas reflects counter migration or reverse migration which takes place when the issues of urbanization take a very grim shape. Migration has a huge impact on the demographics of a place. It plays a marked role in changing the structure of the places concerned. Both the push and the pull factors are responsible for such movements. The push factors encourage people to leave a particular region more specifically the farm sector to various nonfarm activities to supplement their income. The push factors are the distress factors such as Natural calamities like famine (in Ethiopia in 1980's), floods (in Bangladesh), droughts, unemployment, and poverty, whereas the Pull factors attract and encourage people to come to a particular area. Both these factors are responsible for mass urbanization. Migration and mobility are closely interrelated wherein; an affordable access to transportation provides opportunities to move from one place to another through commuting. Today migratory workers provide much of the hand labor required in the U.S and in many other countries.

Migration is usually over longer distances and from one country to another. However, in the present day context such movement or mobility of people are directed from the rural to the urban areas because of the faster development of the urban areas in terms of growth in the secondary and the tertiary sectors spatially located in cities and towns. Thus, urbanization has a huge movement of people from rural to urban areas in search of better prospects. In the recent studies it is observed that there is a shift in the focus from international migration to internal migration. Urbanization is a fall out of the movement of people from rural to urban areas or in one word rural – urban migration.

Urbanization is defined as “proportion of people living in built environments such as towns and cities”. For the first time in the history of mankind it is now estimated that more and more people live in towns and cities than in rural areas. (coolgeography.co.uk)

The U.N defines urbanization as a movement of people from rural to urban areas with the population growth equating to urban migration. There could possibly be two fall outs of migration.

- It involves a movement from villages to cities and change from agricultural occupation to business, trade, services and professions.
- It also involves a change in the migrant’s attitude, beliefs and behavioral patterns.

(U.N 2005)

The Asian countries are currently experiencing rapid Urbanization and migration. The present century has been projected as the urban millennium or the ‘tipping point’. According to the U.N. world urbanization prospects report ---- The change of villages into urban centers is faster in developing countries. Cities large and small are at the heart of a fast changing global economy. The world cities are growing because people are

moving from rural areas to urban areas. Economic opportunities, opportunities of proximity, diversity and market place competition attract the people to the urban areas.

The present situation of urbanization is very grim. This for the first time in human history, the majority of the world's population lives in urban areas.

- 50 % of the world population lives in cities.
- 2/3rd of all people will live in cities by 2050. In 1800 AD, only 2% of people lived in cities and towns. In 1950 only 30% of the world was urban.
- Almost 180,000 people move into cities each day.
- 60 million people move into cities each year in developing countries. The rate of movement will continue for the next 30 years.
- Over the next 15 to 20 years, many cities in Africa and Asia will double in size (The U.N. State of world Population Report, 2007)

It is expected that in the coming years most of the Asian countries would experience a fast paced similar urbanization Latin America experienced in the last half century. “This phenomenon of such rapid urbanization is indeed unprecedented and it has changed human geography beyond recognition” (Mohan and Dasgupta, 2005). In India migration can be considered as the single most important phenomenon that played a major role in changing the demography of the urban areas

A study conducted by the Perspectives Team (Team of research Scholars from JNU, 2007) reveals that in India, out of the total population of 1027 million as in March 2001, about 742 million lived in rural areas and 285 million lived in urban areas. The net addition of population in rural areas during 1991-2001 has been 113 million, while in urban areas it is 6 million. The percentage decadal growth of population in rural areas

during the decade was 17.9 percent, while it was 31.2 percent in the urban areas. 27.8 percent of the total population lives in the urban areas. There has been an increase of 2.1 percentage points in the proportion of urban population in the country during 1991-2001. The number of towns and cities has increased to 4378, and the number of metropolitan cities having million plus population has increased to 35. The annual urban growth rate was 2.34% in 1951 to 61 and it reached a peak of 3.83% in 1981. The deepening agricultural crises over the years had its most severe impact on the rural poor and resulted in large scale migration to cities like Mumbai, Kolkata, Chennai and Andhra Pradesh. These cities including Delhi became the centre to attract cheap labor from all over the country. Migration was the single most important phenomenon that changed the demography of urban areas in the post 1947 period. The limited employment opportunities worked as the push factors in the rural areas while work opportunities worked as the pull factors which led to rural-urban migration in the country. The annual growth rate of the urban population was 2.34 percent in 1951-61 which increased to 3.83 percent in 1981. The deepening agricultural crisis over the years had severe consequences on the rural poor. The agricultural workers were deprived of livelihood opportunities and thus were pushed out of the rural areas further aggravating rural to urban migration.

A study conducted by Chakravarty, (2011) says that in Assam, total percentage of urban population increased from 4.29 percent (1951) to 11.24 percent (1991) and then to 12.90 percent (2001). Within the state, Kamrup district reflected the strongest urbanization process which increased from 7.65 percent in 1951 to 32.76 percent in 1991 and 36 percent in 2001. This extraordinary urbanization rate is fueled by the explosive growth of Guwahati city which accounts for 89.18 percent of districts urban population. This urbanization process is accompanied by migration which is an important and grim issue

in the city, Interestingly out of the total population 8,85,397 in 2001 of Guwahati, 3,78,657 are migrants, constituting more than one third of the population. 5409 male migrants came into the city in search of employment while 28,862 moved in for business purposes. It is very significant to study migration as it holds a very important place in the studies of population. It is responsible for the size, structure, characteristics and the rate of population growth of an area. It also has a great impact on the labor force both in the quantitative and qualitative terms.

The migrants get a chance to be engaged in various activities that the informal sector provides them. Although, Guwahati city is highly congested with growing unemployment due to more labor supply than the availability of work, there is still a contentious flow of population into the city engaging in the growing informal sector. It is thus, interesting to find out the distress factors, more commonly known as the push factors that force the people to move out from a place of origin to a place of destination with an intention to settle down permanently or temporarily. At the same time it is interesting to know the pull factors that attract people from the less advanced areas to the advanced centers in spite of manifold issues that crop up due to such migration. The study makes an attempt to find out the causes responsible for such migration with a focus on the 'Backwash and spread effects' emanating from them. The flow pattern of migration is responsible for the change in the demographics of the city hence; the study makes an attempt to trace the origin and development of Guwahati city and examine the dimension of migration in Guwahati. The issues of migration are manifold therefore; the study discusses a limited number of issues that crop up as a consequence of rapid migration. However, there is not much literature available on the internal policies of migration therefore the study makes an attempt to discuss various issue related policies undertaken by the Govt. regarding human migration.

1.2 CONCEPTUAL FRAMEWORK

BASIC TERMS AND CONCEPTS

A) Definition of Rural and Urban areas in India:

Definition of rural and urban areas varies across the world; however, most countries use demographics/or occupation as criteria to define rural and urban area. Census of India 2001 defines an urban area (the conceptual unit for which is a town) as follows:

1. All places declared by the state government under a statute as a municipality corporation, cantonment board or notified town area committee, etc.
2. All other places which simultaneously satisfy or are expected to satisfy the following criteria:
 - A) A minimum population of 5,000
 - B) At least 75% of the male working population are engaged in non-agricultural economic pursuits; and
 - C) A density of population of at least 400 per sq. Km.(1000 per Sq. mile)

Well defined outgrowths (OGs) of statutory towns have also been included in the extended urban area.

Any area which is not covered by the above definition of urban is rural.

Statutory Towns: All places with a municipality corporation, Cantonment Board etc. be termed as statutory towns

Census towns: places that satisfy the following criteria are called Census towns: A minimum population of 5000, at least 75% of the male working population is engaged in

non agricultural pursuits and a density of at least 400 persons per sq. km i.e. (1000 per sq. mile)

Centre: Centre refers to the more advantaged or favored regions in terms of development. They are the urban advanced centers, to where the flow of resources in human and capital form takes place in search of better opportunities or livelihood.

Peripheries: Peripheries refer to the less advantaged or less favored regions in terms of development. They refer to the backward rural areas from where the flow of resources in terms of human (labor) and capital takes place.

Urban Agglomeration: As per Census 2011, an urban agglomeration is defined as “a continuous urban spread constituting one or more towns and its adjoining outgrowths (OGs). An urban agglomeration must consist of at least a statutory town and its population (i.e., all the constituents put together) should not be less than 20,000 per Census”.

Out Growths (OGs): Areas around a core city or town. They are well recognized places like, railway colony, university campus, port area etc. lying outside the limit of town.

Guwahati City: An area of 216.79 sq Km under The Guwahati Municipal Corporation (GMC), the city's local Government with 31 wards under six divisions is called Guwahati city (Census of India, 2011).

B) Migration and its types

Migrant: A migrant is a person whose last usual place of residence is different from the present place of enumeration at the time of enquiry.

Migration: It is a process involving a physical movement from the usual place of residence to a new place of choice.

Migration intervals: In order to analyze migration, the total time period is divided into series of interval and assembles the data for each interval.

Provisional Population: It refers to the addition to the population arrived at by the reports of the enumerators for the enumeration block assigned to him or her.

Temporary Migrant: It refers to the person who makes a move from the place of his/her usual residence to a place of his/her choice usually in search of work opportunities. In such a situation the migrant has an intention to work there and get back to his/her own usual place of residence whenever convenient.

Temporary Migration: It is a process involving a physical movement of people from his/her usual place of residence to a new place on a temporary basis.

Daily Human Commuting: It involves a movement of the people from one place to another on a daily basis. This type of migration is possible when the place of usual residence is near to the place of work. Shorter distance makes daily migration possible.

Circular Migration: It is a regular pattern of short term migration.

Step Migration: It involves a movement in smaller steps say, from a farm to a small city and a suburb to a big city.

Chain Migration: It involves a movement of people from similar locations to follow the migrants who made a move earlier than them.

Permanent Migration: It is a process involving a physical movement of people from one place to another for a substantially longer period of time with an intention to settle down there. It refers to a permanent shift of the migrant from his place of last residence to his place of destination.

Permanent Migrant: It refers to the migrants who make a move from his usual place of residence to a new place of his choice for a substantially longer period of time with an intention to settle down there.

Internal Migration: It refers to a movement within the country.

In- Migration: It involves a movement into a new politically/administratively/geographically defined area within the same country.

In-migrant: A person who makes a move into a new area within the same country.

Out-Migration: It involves a movement out of a new politically/administratively/geographically defined area within the same country.

Out- Migrant: A person who makes a move out of an area within the same country.

International Migration: It refers to a movement among nations.

Immigration: It is a move into a new country.

Immigration Rate: Number of migrants per thousand populations at that destination at a given year (*Number of immigrants/ Total population at destination X 1000*).

Immigrant: A person who happens to be an international migrant who moves into the area from a different country.

Emigration: It involves a move out of the home country.

Emigration Rate: Number of emigrants departing an area of origin, per thousand populations at the area of origin in the given year (*Number of emigrants/Total population at origin X 1000*).

Emigrant: An international migrant who departs to another country by crossing the international boundary.

Gross Migration: It is the sum total of in-migrants and immigrants plus the out-migrants and the emigrants.

Net Migration: It refers to the difference between the migrants that have arrived into a particular place and the migrants that have departed from a particular place. Net migration is either positive or negative. If the No. of migrants who have arrived is greater than the migrants who have departed it is positive net migration and vice versa. In other words, the net effect of immigration and emigration or (in-migrants and out-migrants) on an area's population.

Net Migration Rate: Difference between the number of immigrants and emigrants, expressed as increase or decrease per thousand populations of the area in a given year (*Number of immigrants- No. of emigrants/ total population X 1000*).

Measures of Migration: Migration can be measured with the measures of 'flow rates' (number of people moving into or out of a country/area). Migration is also measured with the help of the measures of 'stocks' (Accumulated net migration of migrants already living in a place).

Migration streams/migration Flow: Migration stream refers to the pattern of movement of the migrants. Migration stream can be divided into the following four flows: rural to rural, rural to urban, urban to urban and urban to rural. Rural to urban migration is also termed as rural depopulation.

Distress Migration: In some cases people are forced to move out of a particular place in search of better living conditions due to some kind of stress involved in the area of

origin. This type of migration is termed as distress migration. This kind of migration is more commonly found among the people who are involved in agricultural practices as source of livelihood. Due to excessive pressure on agricultural land, agriculture sector faces the problem of disguised unemployment where the marginal productivity of the people engaged in the farm sector is equal to zero. The people are therefore, forced to search for other occupations in order to survive. Thus, this population is forced to move out of the rural areas to nearby urban setups for job opportunities.

Seasonal Migration: This type of migration is more common in agricultural cycles where the migrants are involved in agricultural activities for six months annually and have a tendency to move to newer places in search of work for the rest of the year.

Counter Migration: This type of migration refers to an opposite flow of the people from the more urbanized centers to the less privileged peripheries. This is also called reverse migration. In other words, counter migration refers to a movement from the urban to the rural areas.

Migration Transition: It refers to a country's evolution from being a labour exporter to a simultaneous labour exporter and importer, and finally to being mostly a labour importer.

Place of birth: The persons who are enumerated can be classified as either migrants or non migrants. The persons whose place of birth and place of enumeration are different are considered as migrants. Non-migrants are those people who are enumerated in their place of birth.

Place of last residence: This refers to a place where the migrants resided before moving on to a new place. Data obtained through this method can be classified as 1) Migrants

whose place of last residence and the place of present residence are different 2) Non-migrants whose place of last residence and the place of enumeration are the same.

Place of origin or place of departure: It refers to the place from where a move is made.

Place of destination or place of arrival: It refers to the place where the move ends.

C) Dimensions of migration: It refers to the magnitude or the size of migration for the period of time under consideration. Dimensions also refer to the flow/pattern of migration and its types.

D) Issues of Migration: Issues in the study refer to the impact or consequences of migration.

E) Causes of migration: Causes refer to the factors responsible for migration. The factors can be classified as the following:

1) Pull factors: It refer to the factors that attract movement of people to a particular area.

2) Push factors: It refers to the factors responsible for distress migration.

F) Spread effects: It refers to a situation where the positive impacts of development of the core region on the nearby localities and labor markets exceed the adverse impacts.

G) Backwash effects: When development takes place in a core region, it also creates some adverse impacts on the peripheral areas. Backwash Effects refers to a situation wherein, the adverse effects dominate and the level of economic activity in the peripheral communities decline.

H) Actual earning of the migrants: It refers to the money in hand of the migrants after the expenses are incurred. It refers to the disposable income.

- I) Informal Sector:** This sector includes all jobs which are not recognized as normal income sources. It is that part of an economy which is neither taxed nor monitored by any form of government. Unlike the formal economy the income earned in the informal economy is not included in the Gross National product (GNP) or the Gross Domestic Product of the country.
- J) Self-employment:** It refers to a kind of work where the person concerned generates his/her income directly from the customers, clients or organizations through working as opposed to being an employee of a business (or a person). It refers to a situation where an individual works for himself instead of working for an employer that pays a salary or a wage.
- K) Policies:** Policies are principles, rules and guidelines formulated to reach its long term goals. Policies in the study will confine to policies related to the issues of migration.

1.3 OBJECTIVES OF THE STUDY

- I. To examine the dimension of rural-urban migration into Guwahati city.
- II. To trace the origin and development of Guwahati city.
- III. To identify the causes of rural-urban migration to Guwahati city.
- IV. To discuss the issues as fall outs of migration in Guwahati city.
- V. To examine policies concerning the issues of rural-urban migration.

1.4 HYPOTHESES

Following hypotheses have been considered for the study:

1. Willingness to migrate to Guwahati city is not affected by the socio-economic conditions of the migrants.

2. Opportunities in the villages have no association with a migrant's decision to return back.

1.5 METHODOLOGY AND DATA SOURCE

(A) PERIOD OF STUDY

The Study covers a period from 1991 to 2015. The survey was completed in September, 2015. However, the study had to confine to secondary data for migration till 2001 as the Census data for migration for the next decade (2011) were not published till September 2015.

(B) LOCALE OF THE STUDY

The study makes an attempt to explore the extent of migration into the informal sector in Guwahati city. Guwahati city in Kamrup district has been selected for the study because Guwahati is the most urbanized city and it can be considered as the lone class-1 city with a remarkably high trend of urbanization. Migration is thus a formidable and grim issue here. Guwahati, the capital city of the state, is the largest urban centre in Assam with 23.89 percent of the total urban population of the state. Guwahati has been the capital of the reorganized state of Assam since 1972. The population of Guwahati metropolitan area has grown almost 6.5 times between 1971 and 2001. The municipal limit of the city increased from 7.68 sq. km. in 1951 to 14 sq. km. in 1961, which further increased to 43.82 sq. km. in 1971 and 216.79 sq. km. in 1991. The city achieved its municipal corporation status in 1974. Interestingly for the last ten years, Guwahati city has experienced drastic change in its land use and land cover. Guwahati has been able to attract migrants from all parts of the state as well as other states of the country. As

compared to the other towns and cities of the state Guwahati attracts maximum number of migrants from within the state and different parts the country. This has led to a rise in the population in the informal sector in the city. The percentage of informal sector employment to total employment was 87 percent in 2001 (Chakravarty, 2008). Guwahati is also the state capital which gives it an opportunity to host a large number of State Government, Central Government and Semi- Government offices. The city also houses the regional head quarters of a large number of private companies. Guwahati also has a large number of formal and informal sector ancillary industries which have been set up in and around the city. Guwahati also has a large number of educational institutions which act as an inducement to a large inflow of students. The informal activities have a tendency to mushroom up in the surroundings close by to the offices, educational institutions, hospitals etc. The recent infra-structural development of Guwahati is an attraction for investments in the corporate sector which subsequently generate employment opportunities. Thus, greater livelihood opportunities facilitate migration not only from within the country but also from abroad.

(C) DATA SOURCE

In the study, both primary and secondary data are used. For collecting primary data, interview schedules are used to gather relevant information keeping in view, the objectives and the variables under study. The questionnaire contains both open end and fixed alternative questions. The questionnaire is pre tested to locate any ambiguity in questions. After pre-testing certain modifications are made and the final questionnaire is put to use. The variables considered in the questionnaire are (a) Demographic variables like; age, sex, marital status, community, literacy level, original settlement (whether a migrant or not) (b) Living condition variables like; housing and health facilities, accessibility to basic needs, difference in the living conditions at the place of destination

and place of origin (c) work related variables like; working condition, working hours, training acquired, job satisfaction, desire to go back to the place of destination etc. The questionnaire is framed to cover all possible data required for the study. Refer to *Appendix, Annexure-1*.

The '*secondary data*' are sourced from relevant books, journals, periodicals, seminar papers, Research works, leading news papers, Census Reports, Economic Survey of Assam, Statistical Hand Books, Town Committee Reports, International Reports, Annual Reports and websites.

Visits were made to various departments, Research Institutes and Libraries like; Guwahati Metropolitan Development Authority, Guwahati Municipal Corporation, Social Welfare Department, Urban Development Department, Town and Country Planning Department, Directorate of Census Operations, Indian Institute of Entrepreneurship, Directorate of Economics and Statistics and NGOs within the city were visited. Various libraries like Library of Guwahati University, Library of Population Research Centre, Gauhati University, Library of IIE, K.K. Handique State Open University, and K.K. Handique library, Cotton College State Open University Library were also visited to collect important data. Both quantitative and qualitative data were collected for analysis.

(D) LINE OF ANALYSIS

The methodology consists of both qualitative and quantitative analysis.

To realize the *First objective* of the study, that is, '*to examine the dimension of rural-urban migration into Guwahati city*', the following areas are covered to give a detailed picture of R-U migration to the city; Types of migration (intra state and inter-state),

pattern of migration (R-R, R-U, U-U and U-R) also termed as the flow or stream of migration, Sex selectivity of the migrants and reasons leading to migration. This objective is explained in Chapter-3

The ***Second objective*** of the study, that is, '*to trace the origin and development of Guwahati city*' has been achieved with the help secondary data. The objective is explained by giving a brief idea of the historical origin, geographic location, administrative division, demographic features and infrastructural development of Guwahati city. Information from Historical archive, Economic surveys of Assam, Census Data and City Master Plans are used to draw a detailed sketch of the origin and development of the city. This objective is explained in chapter-4

The ***third objective*** of the study, that is, '*to identify the causes of rural-urban migration to Guwahati city*', Primary data has been used. An attempt has also been made to find out the probability to migrate to Guwahati city at given socio economic conditions using the Logit model.

The ***fourth objective***, that is *to examine the issues as fall outs of migration in Guwahati city* is based on primary data collected from field survey. An analysis of the socio-economic status of the migrants in Guwahati city is made with the help of relevant diagrams.

The ***fifth objective***, that is, '*to examine policies concerning the issues of rural-urban migration*' is based on secondary data source. Logit model has been used to show the association between opportunities in the villages and a migrant's decision to return back.

The third, fourth and the fifth objectives are explained in chapter 5

(E) SAMPLING DESIGN

SAMPLE SIZE

The size of the sample for the study under consideration is decided considering The Krejcie and Morgan table for (known) population. It says that for a population of 1,00000 and above, at 5% confidence interval and 95 % confidence level, the sample size required is 384. Krejcie and Morgan (1970) came up with a table using sample size formula for a finite population. This table has all the provisions one requires to arrive at a required sample size. Refer to *Appendix, Annexure 2*.

For justification of the size of sample for the study, it is necessary to have details about the size of the informal sector in Guwahati city. As per a study conducted by Chakravarty and Baruah, (2008), Informal sector employment by residual method (Total employment-formal sector employment) was 232746 (87%) in 2001. Refer to *Appendix, Annexure-3(a), 3(b)* (Table showing informal sector employment details in Guwahati from 1991 to 2001 and further to 2011). In 2011, the total employment in the city was 305173 out of which the formal sector employment was 33618 and hence the informal sector population was 271,555 or 89 % by residual method (Census 2011). It justifies the size of the sample at 384. Hence, a sample of four hundred and fifty respondents are collected, out of which 66 got cancelled and a data set of 384 valid sample were considered for the study under consideration.

AREA UNDER SURVEY

In order to have a good representation of the migrant's population involved in informal economic activities in Guwahati city, the city is surveyed on the basis of its urban morphology. The urban form of Guwahati city is like a star fish with a core in the central

areas (shodhganga, 09_chapter 2.pdf). The core area comprises of the old city with pan Bazar, Paltan Bazar, Fancy Bazar and Uzan Bazar. Each area facilitates unique urban activities with a capacity to engage people in the informal sector. Pan Bazar is a nodal point for transportation and hotel facilities. Paltan Bazar hosts many offices, educational institutes, restaurants etc. Fancy Bazar hosts many retail and wholesale commercials and Ujan Bazar has a huge fish and vegetable market paving opportunities for the informal sector to grow. Moreover, Ulubari, Lachit Nagar and chandmari including zoo road are also a part of the core (extended core) area exhibiting various urban informal activities. With these areas in the core the whole of Guwahati city can be further represented by the road linkages covering the entire city. The most important link is the G.S road (almost 15 kms from the core city) to the south. Dispur, the capital complex of Assam is situated in this corridor. The sub-city centre at Ganeshguri is also facilitated by this link. This whole corridor is a hub of various retail and wholesale commercials. This road also links places like Hatigaon, Sijubari which supports a huge volume of construction labours, rickshaw pullers and others engaged in petty activities.

To the west of the core city is a rail-road link that connects many important areas such as kamakhya, Pandu, Maligaon. It further bifurcates towards North Guwahati and other towards the LGB International Airport via Jalukbari.

The third link is towards east (around 15 km) from the core city linking Noonmati (Guwahati Oil refinery) and Narengi. This urban morphology is inclusive of the six divisions that incorporates the 31 wards in the city.

This gives an overall sketch of the urban sector of the city. Care was taken to visit a few slum pockets of the city for conducting the survey as; the migrants are usually responsible for creation of slums in the cities. According to a survey conducted by

Guwahati Municipal Corporation in the beginning of the 21st Century 26 nos of slums were identified with 1.6 lakhs persons (18%) of the city's population in 2001. The survey recognised the following slums; Rajabari (Ujan Bazar), Manipuri Basti, Lakhtokia, Aathgaon, Tokobari, Bishnupur, Shantipur East, Gandhi Basti, kumarpara, Bimala Nagar, Dhirenpara, Barnanchal Madhuban, Birubari, Krishnanagar (Japorigog), NamniLuitpar (Kharguli), Madhabpur Mahendranagar, Fatasil Harijan colony, Islampur Hydeatpur Harijan colony, kachari Basti, Paltan Bazar Harijan colony, lakhtokia, Bijay Nagar (Noonmati), Hatigaon Sijubari, GU Harijan Colony, Ambikagiri Nagar, LichuBagan Hengerabari.

Thus, a few slum pockets (Manipuri Basti, Gandhi Basti, Paltan Bazar Harijan colony, Hatigaon Sijubari) were visited deliberately for conducting the survey conveniently. Most of the migrants were engaged in petty informal activities.

SAMPLE CONSIDERED

During the survey, the activities of the migrants in the informal sector were considered with great care in order to have greater utility from them. Migrants engaged in stationary-cum grocery shops, furniture shops, book shops, vegetable shops, pan shops, tea stalls and street meal shops were considered. Moreover, rickshaw pullers, cart pullers, domestic helps, construction labours, and migrants involved in other petty activities like selling of; fish, eggs, home-made local sweets etc were also considered purposively.

The following set of characteristics were adhered to for identification of an enterprise as a constituent of the informal sector (at least one of the following characteristics was to be satisfied); employment of less than ten persons including casual and part time workers, an enterprise operating on an illegal basis contrary to Government regulations, one that

doesn't follow fixed working hours or days, operates on a semi-permanent basis, doesn't avail any financial assistance from any formal financial institution. Thus, all enterprises bearing the above mentioned characteristics, engaged in activities having manufacturing, construction, repairing services, transport and communication and agricultural allied activities were a part of the informal sector. (Shodhganga 12_chapter 4 'informal Sector in Guwahati city) The study conducted considered the unorganized segment of the informal sector (the units belonging to industries, services, and business activities that have no formal relationship with the Govt. or local authorities) contrary to the organized segment in the informal sector that constitute those units that obtain Govt. licenses to run their activities.

SAMPLING METHOD

Sample selection problems in migration studies have four common sources (1) *sampling design or population coverage*: the large universe with the absence of a sampling frame indicates the possibility of non occurrence of random selection of sample units (2) *panel attrition*: Some kind of attrition is available in all panels. However, in case of migration data, families move and are difficult and almost impossible to trace. Others do not want to be interviewed repeatedly. Even though the lost panel members may be replaced with seemingly otherwise comparable individuals and families, systematic differences may well exist between those who remain in the panel and those who drop out. (3) *time-dependent disturbances*: Time dependant selectivity problem arises when migrants from different years are compared. The idea is that the model applies over a span of years, but the disturbance term is time dependant. (4) *differential behavioral responses*: It is in fact a very difficult task to judge the behavior of the migrants. Two migrants with similar socio-economic backgrounds may migrate for different reasons.

The following study is no exception to the given problems. Although the questionnaire structured for the study touches almost all aspects needed to cover the socio-economic status of a migrant, the study could not depend strictly on the method of random sampling because in the absence of a Sampling frame (complete list of members of the population we wish to study) all individuals within the population does not have an equal probability of being selected as a sample unit. Thus the study has been surveyed using a mixture of non probability sampling methods like; purposive/judgmental sampling with sub-categories like snowball sampling as well as convenience/accessibility sampling.

(F) STATISTICAL ANALYSIS OF DATA SET

A data set of 384 respondents (who migrated to Guwahati city are collected and tabulated. After tabulation the data are put to analysis. The primary data are first analyzed in terms of frequencies, percentage and cross tabulation to interpret the socio-economic profile of the sample in terms of various economic and non economic parameters. They are used for interpreting the findings pertaining to a migrant's behavior. Various tools like contingency tables, graphic visualization etc are used as aids to understand the objectives of the study. The 'Cronbach's alpha test' for reliability is used to measure the internal consistency of the data collected. Triangulation, a powerful technique that facilitates validation of data through cross verification from two or more sources is put to use to maintain validity of the study.

Logit model is used as a statistical tool of analysis. The soft wares Microsoft Office Excel 2007 and SPSS-19 version are used

Logit Model: (a qualitative response/discrete choice model) has been put to use as a statistical tool of analysis. It is a special case of generalized linear model (GLM) and thus is analogous to linear regression. This model is used in cases where the dependant

variable is qualitative in nature whereas the independent variables are either categorical or numerical. Logistic Regression seeks to: model the probability of occurrence of an event depending on the values of the independent variables, estimate the probability that can occur for a randomly selected observation versus the probability that the event doesn't occur, predict the effect of a series of variables on a binary response variable and classify the observation by estimating the probabilities that the observation is in a particular category. The dependent variables in logistic regression follow Bernoulli distribution (a special case of binomial distribution, where $n=1$ (just one trial) having an unknown probability (P), Probability of success (P) = 1, and failure (Q) = $(1-P)$). The idea is to estimate an unknown probability (p) for any given linear combination of the independent variables. The Inverse Logit (the natural log of the odds ratio) is the function that links the unknown probability with the given linear combination of independent variables. The regression coefficients for logistic regression are calculated using maximum likelihood estimation. The Estimated regression equation is

$$P = \frac{e^{\beta_0 + \beta_1 X}}{1 + e^{\beta_0 + \beta_1 X}}$$

The probabilities give us an idea about the ratio of the odds in favor of happening of the event to non-occurrence of the event.

Simple linear regression cannot be used in case of qualitative dependant variables as the dependent variable being binary, errors are non-normal and also the errors are no more homoscedastic. Both thus lead to violation of the assumptions of Ordinary Least Squares (OLS).

In the study the Logit model has been used to establish the dependence of willingness to migrate (dependant variable) on various socio-economic factors influencing a migrant's behavior. The similar model has also been used to show the association between opportunities in the place of origin and a migrant's decision to return back.

1.7 LIKELY CONTRIBUTION OF THE STUDY

This research study, 'an enquiry into Rural-Urban Migration to Guwahati City: Dimension, Causes Issues and Policies' analyses the growing magnitude of rural-urban migration into Guwahati city and the growing informal sector and their interdependence on each other. It covers the type and stream of migration, migration by sex selectivity, causes, the possible fallouts of such migration and policies. Such a study is very useful for the policy makers to develop a clearer understanding of the causes of the growing migration in the city which would help in framing policies that are more appropriate to ground realities. This in turn would enhance the probability of adequately addressing the challenges and opportunities presented by rural to urban migration.

1.8 CHAPTERISATION

The thesis for the study has been prepared in six chapters in total, including the present one. A brief overview of the chapters is given below as such;

Chapter 1 with the title 'statement of the problem', conceptual framework, objectives of the study and hypothesis, research methodology and likely contribution of the study are also included in this chapter.

Chapter 2 entitled 'Review of Literature' presents a thematic review of studies under the following heads: definition of migration and urbanization, rural urban dynamics (causes

and consequences of migration), migration and the informal sector, migration and its concerns, theories of migration and rural development

Chapter 3 entitled ‘Dimension of Rural-Urban Migration’ starts with a brief historical perspective of the migrant’s population in Guwahati; based on secondary data, the chapter makes an attempt to explain the dimension of migration by its types and streams. Types of migration incorporates Intra state (intra-district and inter-district) and interstate migration. The streams refer to the (R-R, R-U, U-U and U-R) migration. Causes, consequences and migration by sex selectivity have also been covered in the chapter.

Chapter 4 entitled ‘Profile of Guwahati City’ based on secondary data gives an overview of the city starting with a brief historical background of the city and its geographical location. An account of the minutes of the city such as; administrative division of the city, its urban agglomeration, demographic and economic profile of the population, city infrastructure are explained in the chapter.

Chapter 5 entitled ‘Empirical Analysis of the migrant’s status in the informal sector in Guwahati’ starts with an introduction followed by a brief sketch of the profile of the migrants based on field survey analysis. The study probes into the causes and consequences of migration. Incorporating sampling design and sampling methods, the study takes an attempt to testing of hypotheses. It also presents suggestive measures about the policies framed for the welfare of the migrant population. This chapter also contains a small unit of the review of issue related migration policies by the Govt. The chapter comes to an end with a conclusion.

Chapter six entitled ‘Summary of Findings, conclusion and Recommendations’ starts with an introduction. The Major findings of the work are recorded here. It is followed by a conclusion. At the end, some recommendations are made.

The Thesis encloses the relevant annexure in the appendix and the list of reference of books, journals, periodicals, reports etc. in the bibliography.