ABSTRACT

Migration is a movement which involves a person or group of persons to move from one place to another, thus changing one's place of living especially for a limited period of time. Floating population can be defined as migrants who are temporary or transient in nature and who move individually or in groups to a new place for employment, education, business, service or varied other purposes for a certain period of time and usually have a strong bond with their native place. With rapid urbanization and industrialization, the number of these floating population have tended to increase at a tremendous rate especially in the larger cities of developing countries. In India as well, being a developing country, the volume of floating population in the large urban centres is increasing at a rapid rate and their flow is often related to urbanization and industrialization.

Guwahati, the capital city of Assam, and the largest urban centre of the entire North East India is also witnessing a sharp increase in flow of people from peripheral areas, different districts of the state as well as the other states of the country. The growth of population of the city has shown an accelerating rate which accounted to 8,09,895 (GMC area) in 2001 from 5,84,342 in 1991. Moreover, the low sex ratio in the city (839 females / 1000 males in 2001) also confirms a male selective migration. The increasing volume of floaters who pour blindly into the city poses problems for both the city dwellers as well as the planning authorities. Thus in this backdrop, the present work is an attempt to analyse this grave situation, by identifying the floating population groups and their distribution pattern in the city, studying the socio-economic characteristics of this group of people, and their impact on the city's environment.

The primary objectives of the present work are to study the geographical background of the city and analyse the nodality and
significance of Guwahati City in North East India. The floating population that comes to the city are generally migrants who move out from their native places located in different regions. Therefore, it is very important to delimit different migration zones around Guwahati and examine the "push" and "pull" factors that operates simultaneously in attracting the floaters to the city. The identification and distribution of different groups of floating population coming to the city is a must in order to know and explore this group of people thoroughly which can be done by studying their socio-economic characteristics for gaining a deeper insight into their migratory behaviour. Finally, an attempt has been made to find out the impact of this group of population on the city's environment and eventually suggest measures to deal with various problems associated with these people in Guwahati City.

It has been already pointed out that the increasing urbanization and industrialization is adding a new dimension to the present pattern of rural-urban relationships leading to huge inflow of floating population to the city. This problem is going to be more pronounced in the near future. In developing countries of the oriental world, the rural-urban difference is quite high which leads to high rate of migration. The topic undertaken in this study is a very significant and a burning problem in almost all the major cities of developing countries. In Guwahati also large scale of migration has been noticed in recent years due to the sharp rural urban differences which is stimulating both the rural "push" and urban "pull" factors. Such huge influx of people who pour blindly to the city, has changed the entire urban landscape, from population structure to the landuse pattern, and thus leading to haphazard growth of the city. Therefore, a study dealing with such problems will be of great academic significance and practical utility. Any planning for Guwahati City and its neighbourhood will require thorough understanding of this group of population. Planning authorities will face an uphill task of not
only managing these people but also in controlling their flow and providing adequate amenities for better livelihood. Another task for the concerned authorities is to utilize this workforce in a proper way as the existence of such population cater to the basic needs of the urbanites in different fields.

The present study is based on both primary and secondary information. Relevant secondary data are collected from Census Reports, official records of the Town and Country Planning Organization, Guwahati Municipal Corporation, District Transport Office, District Gazetteers Office, Directorate of Economics and Statistics, Office of the Factory Inspector, Assam Remote Sensing Application Centre (ARSAC) and also from different libraries in the city and National Library, Kolkata. But the main constraint in this study is the fact that secondary information related to this particular group of population for Guwahati City is very limited. Hence those literature which is somewhat relevant with the problem has been collected from varied sources.

Primary data has been collected by carrying out a detailed survey of different households and the respondent's workplace using a survey schedule prepared for the purpose. The method of sampling selected is cluster sampling and stratified sampling techniques. The floating population coming to the city comprises people belonging to various backgrounds with different socio-economic characteristics. The first group of floaters are classified based primarily on occupations such as vendors, workers engaged in the unorganized sector, petty businessmen, lower order job seekers, periodic businessmen and service holders. The second category is the short stay floaters coming for various activities and staying in the city for days, weeks, fortnight or a month. Their period of stay can exceed a month if their work demands for. The third category comprises the students and the fourth one is the daily commuters. The total number of sampled respondents were 1000 which
was surveyed in 39 specific areas located at different parts of the city. The survey areas included markets, residential areas, construction sites, commercial and industrial areas, offices, business establishments, shops, hotels, lodges and the like. A total of 276 (27.6 percent) respondents has been surveyed in the city- centre, 224 (22.4 percent) in the intermediate zone and 500 (50 percent) respondents has been surveyed in the peripheral zone of the city. The survey schedule prepared for interviewing the desired population had some open ended questions framed basically to know about their ideas on their neighbourhood, parent organization, employer and the city. The basic aim was to extract all the relevant information concerned with the study. Sometimes, different people residing near about the place were also interviewed with the motive of gathering additional information regarding crime and anti-social activities, if any. Informal discussions and personal observations were also carried out to some extent.

The data collected from the field are tabulated and analysed in the computer with the ‘Special Package for Social Science’ (SPSS). The results of the analysis are presented in tables, simple graphs and cartograms. Maps being integral part of geographical study, are prepared in this study with the help of Geographical Information System (GIS). To assess the general influence zones of Guwahati City and the interaction with the surrounding areas, the Gravity Potential Model and Railey’s (breaking point) Model has been used. The bus service zone is also demarcated to show the commuters flow. Simple cartograms are drawn by taking the floating population groups and the distance they cover in order to show the distance wise interpretation of the flow pattern.

The present study incorporates altogether seven detailed chapters. While the first chapter is an introductory one, presents the objectives and research questions of the work and describes the method adopted
and the organization of the study along with the survey of relevant literature. A brief note on historical and geographical background of the study area is incorporated in the Chapter II. The growth and development of the present Guwahati City can be traced back to its rich historical background which immensely influenced the growth of population and socio-cultural and economic set up of the region. The population of the town initially increased sluggishly because of limited inflow of local people of rural Assam. The main inhabited area was the old Municipal area which formed a contiguous and relatively compact urban zone. Post independence era witnessed a large number of refugees pouring in and settling down with their families. It also saw an ever increasing flow of people in search of employment which rendered to a sharp growth of urban population in Gauhati. Over the years it has become an important seat of administration, as the capital was shifted from Shillong to Guwahati in 1972. The later development of the city is mainly influenced by expanding cultural and economic activities due to gradual industrialization, commercial expansion, administrative growth, improved communication and growth of socio-cultural organizations.

The physical background includes the city’s location, physiography, climate, drainage, soil, vegetation and the like which bear the imprints over the population distribution and settlement pattern, development of transportation system, land-use pattern, etc. of the region. Geographically, the city is surrounded by hills leaving only the central plain area for urbanization. The landuse pattern of the city changes with time and reflects the degree of urbanization that has taken place at a rapid pace.

At the end of the 20th century, the city witnessed a sharp growth of population to more than 10 lakhs. Heterogeneity marks the population composition in the city. The dominant linguistic groups found here are Assamese, Bengali and Hindi speaking people. The religious
composition shows that Hindus are the dominant community followed by Muslims. The gender ratio is also low accounting to 839 females per thousand males which depicts male selective migration to the city (Census of India, 2001). The setting up of more small and medium scale industries in every nook and corner of the city attracts a large number of floaters. The employment opportunities in the informal sector of economy is also increasing day by day and absorbs the uneducated and the unskilled workers giving ample scope of earning. The heterogeneous population composition reflects the huge flow of working group of population to the city from different parts of the country.

The chapter III delimits the four important zones of migration around Guwahati City as inner, intermediate, outer and distant zone respectively depending on the distance covered by the floaters. To demarcate the inner and the intermediate zones of migration in Guwahati’s immediate surrounding belt, the Gravity Potential Model and Railey’s (breaking point) Model has been used. It is seen that the value of isopotential lines decreases in all directions as the distance from the city increases showing the decreasing interaction with the city. The inner zone of migration at local level encompasses the peripheral areas of Guwahati City within 100 to 150 kilometres of distance connecting the places like Mangaldai, Rangia, Hajo, Palasbari, Nagaon, Baihata Chariali by a well connected transportation network. The intermediate zone at state level extends to the whole of Assam covering the various districts of the state. The outer zone at regional level extends up to the neighbouring states of North East India including Sikkim. The last zone is the distant zone at national and international level which covers the different states of the country. The migrants coming from this zone mainly comprise of labour class floater, seasonal businessmen, officials, students pursuing higher education, workers engaged in the informal sector, etc. Usually the floaters of this zone are engaged in all
types of job avenues available in the city. A small sub-segment comprises of white collar professionals who come on tenure posting or deputation. Thus these four zones of migration helps to understand the importance of the distance factor on migration pattern and its relationship with other important variables.

The growth of the floating population in the city can be attributed to both pull and push factors. At the beginning of the growth of Guwahati as a modern urban centre, immigrants came to the city as industrial and sanitation workers, or for Government services or trade and commerce and as artisans. They comprised of people coming from outside the state rather than the indigenous people. This was evident in the pre-independence era whereas after independence more and more people from within the state came voluntarily in search of employment opportunities along with refugees from erstwhile East Pakistan. The pull factor was more pronounced in the pre era but in the later 19th century, the push factor became more evident. They include economic misery, rural poverty, lack of agricultural land, unemployment, underemployment, low income levels, natural calamities, social conflicts, fragmentation of landholdings, social stigma, lack of good schools, specialized hospitals and markets. The pull factors include better economic opportunities, regular and secured employment, cash wages, better lifestyle, social security, educational and medical facilities, entertainment and the like. The high exodus of people to the city can be labelled more appropriately as rural-urban migration where both pull and push factor operates simultaneously.

The Chapter IV is devoted to the main theme of the study. This chapter is both descriptive and analytical one, as it describes the different groups of floating population along with their distribution pattern in the city. Chapter V studies the social and economic characteristics of the floaters. As already mentioned, the floating
population in the city are classified into four main categories which includes nine important groups. The first one is based on occupation, the second one includes short stay floaters, the third and the fourth are the students and daily commuters respectively. Altogether 39 specific areas were surveyed in different areas of the city taking in account the localities in the city-centre, intermediate zone and the peripheral zone which is demarcated considering a distance of 3 kms. from the city-centre and covering 1000 respondents. The population composition of these zones of the city are heterogeneous in nature. The areas in the city-centre being mainly commercial and industrial zone, is inhabited mainly by Hindi speaking people of Hindu origin. They work as daily labourers in godowns, cart and horsepullers, head loaders, rickshaw pullers, petty traders, etc. The intermediate zone is dominated by Bengali speaking Hindus working as petty traders, services, shops, hotels, masons, domestic helpers etc. Some areas of the peripheral zone like Daurandha, Sijubari, Lalmati, Hatigaon is largely dominated by Bengali Muslims engaged mainly in the informal sector and toil very hard to earn a living. They are blue collar workers and being illiterate and unskilled, get easily absorbed in the unorganized sector of economy.

Considering the social characteristics, the most mobile age group is 15 – 55 years and they take up different works in the city. Males are more than females as females usually migrate only over short distances. Hindus dominate in all the categories of floating population groups except the workers in the unorganized sector and lower order job seekers where Muslim population is high. In context of linguistic groups, Bengali speaking people are more in the unorganized sector and lower order jobs whereas Assamese speaking dominates in all categories. Hindi speaking people are found among the workers in the informal sector, petty traders, short stay floaters, etc. Assamese, Bengali and Hindi are the predominant language used by these people. General caste
people and scheduled castes are more among petty businessmen and lower order job seekers, scheduled tribes among the students and daily commuters and other backward class people is more in the lower order job category. The movement of the unmarried floaters are more than the married floaters whereas the share of divorced, separated and widowed people are very few in number. Single person and nuclear families are most dominant, although a sizeable share of other family types are also found. The condition and quality of houses depend upon the income level of the migrants. The purely temporary floaters live in the disadvantageous locations with least civic amenities whereas the semi-permanent ones mostly lives in rented houses, and the quality of houses is better with toilet and bathroom facilities, electricity and water supply.

Type of occupation or the employment undertaken by these people determines their income. Here 63.8 percent of the service holders among the surveyed groups have a yearly income of more than Rs.50,000 whereas the blue collar workers who are unskilled and engaged in the unorganized sector earn a yearly income of Rs. 20,000 – Rs. 30,000 (35.0 percent). Considering the yearly income levels, the floaters can be classified into six income groups. The expenditure level among the floaters is quite high in comparison to their income. Food and clothing comprises the two main items where yearly expenditure is the highest. Religious functions also add to relatively more expenditure, though the pattern may differ from one group to the other.

The impact of such type of migration on the city's environment is analysed in Chapter VI. Economic inequality is the root cause for such inflow of population to Guwahati City from the nearby and far-flung areas. These floaters impose large scale implications on the city and its environment. Migration of the people from the rural areas has changed the economic structure of the city by providing the additional
workforce to work as labourers mainly in the secondary and tertiary sectors of the economy. The work participation rate in Guwahati Municipal Corporation is 35.1 percent of which males account for 54.08 percent and females constitute 12.51 percent (Census of India, 2001). High rate of migration also creates shortage of employment opportunities in the city as the limited avenues gets saturated in the long-run, so the non fulfillment of the long cherished dream of earning more in the city and living a secured life leave them frustrated and eventually some of them become anti-social elements and take part in different sorts of crime. In recent years the city has experienced tremendous population growth which has increased the population pressure on land. With limited scope of expansion of the city, there is urban sprawl in haphazard manner. The lack of proper housing space in the city-centre leads to encroachment of hills, forests, wetlands, open spaces, river sides, railway tracks, etc. creating informal settlements with least civic amenities. Hence they become areas of health hazards. The landuse pattern is drastically changed. The unabated flow of these migrants also causes various physical impacts like growth of slums, landslide on the hill sides, drainage congestion, water logging, pollution, etc.

Finally, the concluding chapter i.e. Chapter VII summaries the major aspects of the work and attempts to synthesize the findings. Some suggestions are put forwarded regarding possibilities of undertaking any research concerning this problem in the city or any other area and for better execution of existing plans and framing new policies in near future to combat with socio-economic and environmental problems associated with floating population.