CHAPTER 1

INTRODUCTION

Increase in human population on the earth’s surface is responsible either for the emergence of new settlement area or for the addition of new inhabitants to an already settled area. Concentration of population in a particular area not only brings about the changes in its size or quantity but also it does enough in every respect towards the growth and development of the area in relation to time and space.

The two hill districts of Assam, viz. Karbi Anglong and North Cachar Hills (Dima Hasao) bear small quantity of urban population each to the state’s total. But in respect of percentage to the district’s total population these two districts are not lagging behind. According to the census record of 2001, the North Cachar Hills district stands second position with 31.60%, and with 11.30%, the district Karbi Anglong ranks tenth amongst the undivided 23 districts of the state of Assam in respect of district-wise urban population.

The growth of new urban centers in different locations is responsible for the higher percentage of urban population in these hilly districts; and there are some factors affecting the processes of growth and development of the centres. Since the emergence first as sub-divisional and latter as the districts’ headquarters – Diphu and Haflong have been attracting especially rural people not only of the respective district itself but also from other parts of the north-eastern states of India as well.

Diphu, the district headquarters of Karbi Anglong being located in a Sixth Scheduled Area, has been taken as a special urban centre into account for this study.
An attempt has been made to find out the growth pattern of the town in relation to time and space based upon empirical studies and systematic investigations with the help of both primary and secondary data.

The rapid growth of urban population in this premier centre of the hilly region followed by developmental activities is the outcome of various factors. On the other hand, the gradual increase in number and intensity of problems associated with the processes of urbanization is of much concern in the present situation.
Map - 1.1

STUDY AREA

LOCATION MAP OF
THE HILL DISTRICTS & DIPHU TOWN

Source: School Atlas, and Town and Country Planning Department, Diphu

MAP OF DIPHU URBAN AREA

Source: School Atlas, and Town and Country Planning Department, Diphu
1.1 **General Statements of the Problem:**

In spite of being physically remote and socio-economically backward in comparison with some other districts of Assam, it has been found that the growth of urban population in the hill districts of Karbi Anglong and North Cachar Hills is noticeably higher. These two districts rank 10th and 2nd respectively amongst the undivided 23 districts of the state in respect of urban population to the district’s total, according to the 2001 census.

The history of urbanization in these districts is not so old as compared to many other districts of Assam. An attempt is made to visualize the process of urbanization in different locations of the districts. Special emphasis has been given to that of the growth pattern of Diphu – the second oldest administrative centre of the hill districts. Areal expansion of the town in course of time is the focus; and the processes of urbanization have critically been analyzed.

1.2 **Significance of the Study:**

It is seen that very few research works have so far been carried out in respect of Urban Geography throughout the state of Assam. These are confined to that of the urban centres of the plain areas, more particularly on Guwahati city. On the other hand, research-oriented geographical studies on the hilly urban centres of other north-eastern states of India are also scarce. As the landscape of the state is physiographically uneven characterized by flood, plains, peneplains, hills and plateaus the distribution of population as well as the concentration of urban population has also been governed by physical characteristics of the land surface to a large extent. The hill districts of Karbi Anglong and North Cachar Hills, which
deserve special significance from many respects lying in a Sixth Scheduled Area, have a definite scope and importance to study the urban growth pattern. The factors affecting the location and growth of the urban centres, their spatial arrangements, etc. in the hilly areas are to be analyzed.

Attempts are being made through this study so as to correlate the pattern of growth of Diphu town with other urban centres of the hill districts based on inductive reasoning. It is hoped that a systematic research work on Urban Geography in the hilly areas would not only be helpful for geographers, students or researchers but also be for planners, economists, sociologists and administrators in the future to come. This will also help the common people in understanding the urban problems associated with the urbanization processes in the hilly areas of this region.

1.3 Objectives:

The following objectives of this research work are expected to provide answers for fulfillment of the purposes of the study -

i. To study the trend of urbanization taking place in the hill districts of Assam.

ii. To examine the causes of migration of rural tribal people to the newly emerging urban centres of the hill districts.

iii. To analyse the impact of land occupancy/land holding laws upon the processes of urbanization in Diphu town of Assam.

iv. To find out the pattern of urban sprawl of Diphu town.
1.4 Research Questions:

On the bases of limited known facts and conceptual framework, the following research questions have been taken in to consideration in order to investigate the problem in a scientific way.

i. Whether urbanization in the hill districts as compared to plain districts of Assam is taking place at a faster rate?

ii. Whether the civic facilities and amenities attract the rural tribal people to the administrative centres of the hill districts?

iii. To what extent the land occupancy/land holding laws prevailing in this Sixth Scheduled area influence the processes of urbanization in Diphu?

iv. Whether the urban sprawl of Diphu town has been restrained by the physical barriers?

1.5 Methodology and Database:

The research work is aimed at accomplishment within the stipulated framework for which it is required to follow some methods and procedures. A two-pronged approach through nomothetic and idiographic ways has been adopted for the work. This is why, for convenience, the entire work has broadly been divided into three phases, and both the empirical and analytical methods of study have also been applied for the purpose.

A. Since the overall geographical area for the study is extensive, and the prime investigation has been confined to the urban area of Diphu; maps and
secondary data have been collected from each and every town committee by visiting the concerned town/urban centre as a part of pre-field phase.

B. Based on the objectives and hypotheses, a suitable and easily understandable questionnaire has been prepared to collect the required information from the respondents with the help of random sampling procedure. The areas which are still lying outside the existing boundaries of the Town Committee and Master Plan area have also been considered for the purpose.

Another questionnaire has been designed for personal interview with some eminent persons of Diphu town with a view to gathering more precise and actual information regarding the urban growth and development of Diphu.

C. The third and final phase of the research work involves the works of compilation and computation of the collected data; mapping and other laboratory works; analysis and interpretation; and finally, findings and results followed by summary and conclusion.

Topographical maps prepared by Survey of India belonged to different periods; satellite imageries of IRS P6 LISS-III, 2007 and LISS-IV, 2009 have been used in the study.

1.6 Organization of the Study:

The structure of the thesis has been designed in a way so that it includes every aspect to form a complete research work. It has broadly been divided in to three parts, viz. introduction, analysis and synthesis. Chapter 1 and 2 are included in
Chapter 1 is concerned with the introduction with its sub-contents namely General Statements of the Problem, Significance of the Study, Objectives, Research Questions, Methodology and Database, and Organization of the Study. Terms and Terminology used have also been incorporated followed by Review of Relevant works and Related Literature(s).

Chapter 2 deals with the Geo-Environmental Setting of Karbi Anglong and North Cachar Hills districts with special emphasis on Diphu urban area. This chapter includes the historical backgrounds of the two hill districts along with the Diphu urban area too.

Chapter 3 deals with the process of urbanization in the hill districts of Assam giving stresses on the growth of urban centres in the region. Special aspects of urbanization in the districts have also been incorporated in this chapter.

Chapter 4 deals with the history of peopling and process of urbanization in Diphu town. The spatial dimensions of urbanization in Diphu in terms of areal extent through landuse/land cover have been explained in this chapter.

Chapter 5 contains the two sub-chapters viz. Analysis and Findings of the research work.

The Summery and Conclusions have been placed in the synthesis part under the Chapter 6.
1.7 Terms and Terminology Used:

The research problem, which has been selected for the purpose, is entitled as "Urbanization in the Hill Districts of Assam with Special Reference to Growth of Diphu Town".

In this study, the term 'urbanization' is used to mean the changing of the rural place into town-like area which is mainly associated with migration of population resulting in an increase in population figure, change of occupational structure from agriculture to non-agricultural activities, cottage industries to mass production and service industries.

The term 'hill districts' here refers to the two districts of Assam—Karbi Anglong and North Cachar Hills (N.C. Hills) having hills and plateaus, i.e. comprised of high altitude areas. The new name of N.C. Hills is Dima Hasao.

The term 'growth' implies here the sprawl out or the expansion of the urban area in the form of new establishment and built-up areas associated with the change in socio-cultural environment.

'Diphu Town' implies the geographical area within the boundary of Diphu Town Committee comprising presently 10 numbers of ward. On the other hand, the term 'Diphu Urban Area' refers to that area under the jurisdiction of Master Plan boundary as framed by the Town and Country Planning Department, which includes the Town Committee area.

The phrase 'Sixth Scheduled Area' refers to that geographical area which is considered as an area of special importance from the view-point of socio-political
status of the indigenous inhabitants under the provisions in the Sixth Schedule to the Constitution of India.

'District Autonomous Council' implies the local administrative body having autonomous political power in the district. It is formed through the procedures as specified in the Sixth Schedule to the Constitution of India to ascertain the constitutional rights of the indigenous tribal inhabitants. Both the hill districts of Assam are governed by the respective individual Autonomous Council.

1.8 Review of Relevant Works and Related Literature:

Urbanization is one of the prominent characteristic features of human settlement throughout the world. But depending upon the geo-environmental, economic and/or socio-cultural characteristics the degree, rate, pattern or trend of urbanization varies from place to place and from region to region.

Various kinds of research activity have been carried out by geographers, planners, economists and also sociologists in the field of Urban Geography. Some of the research works pertinent to this problem have been mentioned in the following.

Donald F. Mulvihill and Ruth Cope Mulvihill through their work “Geography, Marketing, and Urban Growth”, (1970), Van Nostrand Reinhold Company, New York, try to ascertain the interrelationships between Geography, marketing and growth of urban agglomeration. In the fourth chapter of the book, the authors give an intensive analysis and interpretation of urban development associated with marketing processes. Taking the cities of New York and Chicago into account, they seek to explain how the physical barriers like water bodies,
mountains, etc. check the diffusion of urban areas. The 5th chapter deals with the urban internal structure resulting from marketing activities. In the 6th chapter of the book the authors try to explain spatial dispersion of urban areas with the help of the models and theories of Von Thünen, Christaller and others. They point out the price differences resulting from demand and supply, which govern the spatial dispersion.

J.L. Brain Berry and Frank E. Horton in their book entitled “Geographic Perspective on Urban system” (1970), Prentice-Hall, Inc., Englewood Cliffs, New Jersey, try to illustrate the geographic perspective in the study of towns and cities. The book begins with reviewing the changing framework of ideas in the field of Urban Geography to emphasize that the ‘facts’ considered significant at one time seldom remain so: concepts shift as one paradigm is transformed into another. In the second chapter of the book, they explore the evolution of the American Urban System. The fourth chapter is aimed at the illustration regarding the theories and techniques for studying urban and regional growth. On the other hand, chapter twelve deals with the physical space, i.e. internal structure of cities/urban areas.

The concept, terminologies, definitions, classification of urban agglomerations; the historical growth and development of the world’s ancient cities – their characteristics, structural components, etc. have been explicitly discussed by Ray M. Northam of Oregon State University in his book entitled “Urban Geography” (1975), published by John Wiley and Sons, Inc., New York, London, Sydney, Toronto. Referring to the urbanized areas of the United States in 1970, he tries to identify an areal unit in which the greatest share of the population is engaged in activities that form an integrated social and economic system. He argues that the areal spread of an urban agglomeration is not confined to a single political jurisdiction. With the help of geographical representation, the author, in the third
chapter of his aforesaid book explains the approximate times of city formation in different parts of the world, right from the Mesopotamia to the Meso-America through pre-historical and historical perspectives. He attempts to make a structural comparison between the cities of ancient, medieval and Renaissance period. He puts a glance over the emergence of suburbia - a characteristic of urban culture, which developed during nineteenth century A.D. He also makes an overview of the recent world-urbanization with special reference to the United States in the fourth chapter of the book.

Akhtar A. Badshah in his book “Our Urban Future: New paradigms for Equity and Sustainability”, (1996), published by Oxford University Press, Karachi and Zed Books Ltd., London and New Jersey offers some very relevant issues considering them as challenges in terms of situation that would be prevailing in our future urban life. During his official as well as personal visit to various urban areas in different parts of the world he gathers extensive experiences with empirical studies; on the basis of which he tries to analyse the forthcoming problems due to uncontrolled urban growth. He identifies nine factors and conditions that encourage the development of sustainable and equitable urban communities. In the first chapter of the book he describes some of the major challenges facing our changing urban world. Some of the important urban policies that have evolved over the recent decades have also been highlighted which have combined the role of government agencies, private sector investment and community involvement. The focus of the second chapter of the book is the development of criteria for sustainable and equitable housing and urban services. The second part of the book consists of five detailed case studies. The third part involves with recommendations - which actually
are strategic, not project-oriented; and concerned with equitable and sustainable urban development services.

An attempt has been made to analyse the system of urban activities in South-east Asian nations since the inception of the urban growth by David A Smith and Roger J. Nemeth through their research work “Urban Development in South-east Asia: A Historical Structural Analysis” published in the book entitled “Urbanization in the Developing World”, edited by David Drakakis-Smith (1988), Routledge, London and New York. This research paper is designed to focus on the historical roots of urban primacy and intra-urban inequality in the region and also to systematically explain how and why the pattern of uneven urbanization took place. It also analyzes the degree to which the cities of South-east Asia at various stages of history fit into this generic mould of development urbanism and similarities and differences between urban structure and growth pattern. The researchers opine, ‘the present urban systems of South-east Asia offer classic examples of primacy and uneven urban growth’.

The book entitled “Problems of Growing India Cities”, written by Dr. Rajiv Ranjan and published by Rajesh Publications, New Delhi in 1997, is the outcome of the findings of his Doctoral thesis entitled “Problems of Growing Indian Cities: A Case Study of Bhagalpur”. Although the book emphasizes the problems associated with urbanization in India in general, it visualizes the pattern of growth and evolution of the city of Bhagalpur in particular. Taking Bhagalpur, a class-I city of eastern Bihar into consideration as an example, Dr. Ranjan tries to interpret the problems arising due to urban growth.
A quantitative analysis has been made by Smt. K. Sreelakshmamma in her research paper "Growth of Cities and Towns in Andhra Pradesh" published in the book entitled "Urbanization, Migration and Economic Development", edited by M. Koteswara Rao; Kanishka Publishers, Distributors, New Delhi (1995), pp. 261-269. She, considering the population census data of 1971, 1981 and 1991 tries to show the pattern of growth of urban agglomerations in the state of Andhra Pradesh during the 70s and 80s of last Century. Class-wise urban centres (from class I to class VI cities and towns) have been identified in terms of decadal growth.

In their research work "Process of Urbanization in Visakhapatnam City", published in the M. Koteswara Rao’s edited book entitled “Urbanization, Migration and Economic Development”, Kanishka Publishers, Distributors, New Delhi (1995), pp. 287-307, Prof. V. Pothana and Dr. Ch. Panduranga Reddy give a detailed explanation on the demography of urbanization in Visakhapatnam city. An attempt has been made more particularly to examine the interrelationships between the urbanization components on the one hand and demographic changes on the other. The most powerful urbanization components – ‘density’ of population in relation to geographical space and ‘migration’ have been placed and analysed vividly with the help of statistical figures.

Deva Kumar Dutta in his research work submitted to the Gauhati University, Guwahati as the M. Phil Dissertation under the title "Changing Landuse Pattern in Morigaon Town", 1992, points out that town landscape is the result mainly of the locational factors and socio-economic factors. A generalized landuse analysis of Morigaon town has been done by the researcher on the basis of available data during the periods of 1971-72, 1981-82 and 1990-91. He has drawn the conclusion as “though agriculture is one of the main sources of income for a large section of
the people, the identity of the agrarian character will be lost in near future with the
growth of the town”.

In the research work submitted to the Gauhati University for the degree of
Master of Philosophy entitled “Mangaldoi Town: A Study in Urban Geography”,
1984, Mati Ram Medhi confines his study mainly to the demographic and socio-
economic characteristics of the people of Mangaldoi town. He tries to find out the
interrelationship between pattern of social transformation and the pattern of landuse
in various parts of the town.

Taking 55 variables into account for his Ph.D. research work “Structural
Analysis of the City of Gauhati: A Geographical Study”, 1975, Madhab Chandra
Sarma concentrates the analysis to the spatial structure of the socio-economic
characteristics of the urbanites of the then Guwahati. The study shows that the social
space of the city of Gauhati (presently Guwahati) is made up of number of
independent dimensions and when they are overlaid on the physical map of the city,
isolates the areas of social homogeneity.

An in-house project entitled “Study on Landuse Pattern of Guwahti City,
2002 and its Temporal Change Using Remote Sensing Technique”, May 2004 has
been prepared by Assam Remote Sensing Application Centre of ASTEC, Guwahati.
This study is confined to the analysis of changes in the landuse pattern in the city of
Guwahati since 1967-68 up to 2002. The landuse pattern includes the components –
built-up land, agricultural land, forest, wasteland and water body. An analytical
comparison has been made considering the data and information based on the
Survey of India’s topographical maps of 1967-68, the remote sensing satellite data
of 1990 and 2002 respectively. The spatial changes in respect of urban growth
toward the peripheral areas along with inner pockets have been detected in this study. Also the study finds out about 15% increase in built-up land over a time span of 23 years.

Based primarily on his own unpublished Ph.D. Thesis - 'Gauhati: A Study in Urban Morphology', Utkal University, 1977, N.N. Bhattacharyya works out an analytico-synthetic study in the form of a book entitled “Morphology of the Towns of Assam with Special Reference to the City of Gauhati”, 1981. By taking five representative urban centres in different parts of the state of Assam, the author concentrates his study to the morphology, i.e., the structural and organizational analyses of the townscape. The first chapter of the book is aimed at the discussion of the general trend of urbanization in the state since 1872 up to 1971. During these hundred years of time span, the number of towns in Assam rises from four to seventy-two. The author observes that many of the declared towns have only a few urban characteristics, which should actually be considered as large villages rather than towns. Chapter ‘two’ deals with the origin, growth and functional morphology of the selected towns of Dhubri, Tezpur, Dibrugarh and Silchar, which are explained with the help of landuse maps. Third chapter is meant especially for the origin, growth and development of the city of Gauhati (presently Guwahati). The morphology of the city represented by the patterns of landuse has been extensively discussed. In the concluding chapter of the book the author writes, “Towns of Assam exhibit different forms of functional morphology due to their local physical and socio-economic factors”. Almost all the towns of the state are administrative by nature in respect of their functions, and the pattern of growth is haphazard in most cases.
Edited by Harikesh N. Misra and Vijai P. Singh is the book "Research Methodology in Geography: Social Spatial and Policy Dimensions" (1998), reprinted in 2002, published by Rawat Publications, Jaipur, that consists of 21 chapters (papers) contributed by various authors. These papers are explicitly designed to deal with the basics of research methodology under geographical perspectives. Apart from general methodology-oriented writings, some of them are associated with research activities in Urban Geography by using modern methods and techniques. The eighth chapter of the book named as 'Spatial Sampling Design for an Urban Household Survey', authored by G.S. Sastry, explains the procedure of sample survey, problems of urban data collection, measures taken to reduce non-sampling errors, questionnaire designing and training, etc. The chapter '21' authored by K.V. Sundaram deals with the problems of interdisciplinary teamwork and research in Urban and Regional Planning.