Settlement is the organized abode of the human beings. It is the central point of all human activities. The term 'Human Habitat' is a recent concept, which became popular after the United Nations Conference on Human Settlement held in Vancouver, Canada in 1976, generally referred to as 'Habitat (Mishra, 1979). Settlement along with its dwellers serve as the subject for geographical studies of all branches of Human Geography. The Greek word 'Ekistics' (Doxiadis, 1969) - the Science of Human Settlement includes all forms of human occupance, either permanent or temporary, rural or urban. It plays equal importance from temporary huts of hunters or herders to permanent houses or buildings of hamlets, villages, towns, cities, etc. Settlement Geography intends to investigate the complex problems of human groupings in rural and urban areas in relation to time and space. The basic ecological requirement of shelter is the primary cause for the origin of settlements. Once the process of evolution is set in, a series of socio-cultural attributes, such as aesthetic senses, social rites, economic concepts, innovations and
technological ideas, etc. of the inhabitants impart dynamic character to the structure and morphology of a unit of settlement. In the case of any transformation, it is obviously propagated by the interaction among people of the neighbouring settlements and with the growing of such interaction among people of the neighbouring settlements and with the growing of such interaction among the settlements of various size and rank, the process and progress of socio-cultural development is started. As a result of the exchange of ideas and views, goods, technology, etc. the interaction among the settlements is bound to grow, in course of time. Such interdependency, links up settlements of different sizes and ranks into a composite form or system with some higher order of settlements as focal points. Such a special organization of human occupancy unit is usually referred to as a settlement system.

The fast changing mental space of the human communities and the increasing problems of human habitation with unprecedented advancement of Science and Technology, attract growing attention of sociologists, economists, geographers and planners towards the study and planning of human settlements. Till recently, the Geographers and others studied settlements under micro-regional or regional framework, giving the individual identity of rural and urban settlements and their planning prospects were derived out of the physical,
cultural and economic constraints on their morphology, growth and distribution. The present trend of settlement geography is directed mainly towards studying the human occupancy units as sensitive and integral components of a spatial organisation system. Thus, the planning prospects are derived from the study of the multiple subtle relationships amongst the variables and covariables that impart dynamism to the whole systems.

During the last few decades, some substantial works have been done by the Indian Geographers in the field of settlement geography. Recently, the study of settlement geography in our country enters a new phase with more modern scientific tools of synthesing socioeconomic attributes, within a conspicuous conceptual framework of spatial system, in order to provide a highly applied base of settlement planning.

1.1 ABSTRACT:

The problem under study aims at the settlement pattern of Dhubri district - located in the southwestern corner of the Brahmaputra valley of Assam. It is one of the oldest underdeveloped settlement regions of the state. However, the recent development of agriculture, some minor industries and the growth of various new service centres in association with the development of transport and communication systems adding a new dimension to the present
pattern of settlement in the most fertile partly flood prone part of Assam. In this paper an attempt has been made to study and delineate some of the most salient perspective features of the settlement pattern, which includes rural and urban landscape, origin and growth of settlements, characteristic features of settlement sites, spacing, classes, size, form, shape, dispersion and concentration and distribution of settlements and spatial locational arrangement and relation to one another with respect to environmental affinity of rural settlements in Gaon Panchayatwise population - their composition, population potential, role of service centres, etc., growth of urban population and urban settlements along with the degree of urbanisation, their important geographical analysis, impact of some physico-cultural factors on settlement pattern and some spatial relations pertaining to socio-economic status and socio-cultural characteristics of the existing landscape of the study area. It is observed that the characteristic type of settlements is highly governed by the physical and cultural attributes, seldom over riding the other and in most cases the settlements are in primary stage of development warranting better organisational planning and quick upliftment in all respects throughoutly, as for the basic need of the time.
1.2 THE PROBLEM:

The concept of settlement geography is derived from the German term Siedlungs Geographie (Doxiadis, 1969), which involves the study of visual imprints made by man upon the physical landscape in the process of occupancy. Settlement Geography is a recent most sprout from the venerable trunk of Human Geography. It is concerned mainly with the temporal and spatial variation in the process of settling on the earth's surface to know the cultural advancement of the human beings and the man-land relationship of the environment. Settlement refers to the characteristic grouping of population into occupancy units together with the facilities, such as, houses, water, streets, etc., which serve the inhabitants (Finch, 1949). These facilities are designed to meet with the specific purposes and hence carry the desired functional meaning (Kohn, 1954). The distribution of these facilities are greatly influenced by the mode of living of people, site and the nature of physical environment.

The growth of urban settlements is the result of the temporal modification of rural settlements, depending on their growing cultural and economic activities. A settlement geographer is generally concerned with such an urban centre as a functional and physical entity.

The settlements particularly, the urban settlements form systems with a definite degree of functional wholeness.
in a region which contributes to the evolution of its distinct identity (Jain, 1982). Since, the rural and urban settlements are functionally interrelated, a useful approach of studying settlement, is to see the morphological structure and functional transformation of the rural habitational units under the framework of urban settlement system with which the rural communities have conspicuous functional association. Besides, the physical environmental forces that are visible to some degrees in the morphological character of settlements, the changing inputs like re-orientation of transport network, extension of public utility and administrative services, changes in goods distribution system, industrialisation, etc., within a settlement system brings about morphological, structural and functional changes of the constituent settlement, whether urban or rural. A system approach is, therefore, necessitates the delineation of urban space to investigate the spatial variation in the degree of socio-cultural development within the urban space.

The study of settlement includes the explanation, investigation and observation of the natural and cultural environmental forces that are closely tied up with the origin, growth and diffusion of rural and urban settlements. Under the system approach, the rural and urban
societies are considered as interdependent settlement communities and their socio-cultural level of existence, trend of growth both morphological and functional are treated as the outcome of the man made environment. The scope of this study, therefore, extends to all the elements of the cultural environment, which are responsible for imparting dynamic character to the rural and urban communities and for their functional interdependency. On settlement system a limited work has been done in India, but it finds a wider horizon of study and investigation in the highly urbanised Western World, in every description.

The towns and cities grow, mainly to provide services and goods for people outside their Municipal areas. The location, morphology, functional character, volume of services, areas of diffusion and degree of connectivity of the urban settlements are some of the determinent elements for their socio-cultural impact on the surrounding rural settlements. The sphere of influence of the urban settlements grow in size with the increasing settlements, volume of services, commodity flow to and from the urban centres. Thus, the study and measurement of such elements are the essential aspects for determining the nature, extent and the degree of rural-urban linkage. A study of interaction among the settlements, thus requires a better understanding on rural-urban
relations. Some of the useful references dealing with rural relations are shown well in the writings of E. Jones (Jones, 1966), R.E. Dickinson (Dickinson, 1964) etc.

All the above mentioned works, serve as conceptual base for the study of spatial organisations of settlements, rural-urban interactions and degree of interdependency among settlements in the growth and development of a settlement system. There is a wide variation in the growth and organisation of settlements depending on socio-cultural inputs. Any such work may provide the conceptual frame work for searching out the socio-cultural forces that shape out a settlement system and for exploring the possible inputs that may result in a highly scientific organisation of settlements for all developmental planning. Thus, these works are inadequate to explain/establish any specific theoretical model to fit into all the existing systems of settlement distributed over culturally variable space.

Keeping in view, the present work has been taken up. The reason behind selecting the Dhubri district of Assam (Fig. 1.1) is that the physiographically the area is almost homogeneous, highly agro-based and very poorly urbanised plain district of North-East India. It exhibits its individuality, as regards, settlement organisations, which differs in many respect from some other districts of the state. Further, Dhubri district, being the home district of the
investigator, who is well acquainted with all rural and urban landscapes of the district, is well informed of the socio-cultural, demographic and economic conditions of the district. The investigator develops a keen interest in a systematic study of the settlement behaviour of the heterogeneous population in the area, consisting of a number of scheduled caste and scheduled tribe groups and immigrant population, besides, many other local communities.

The poorly developed district with some minor resource potentials needs speedy manpower and socio-economic developmental programmes and for this reason, the investigator feels that the settlement organisational planning is likely to serve as base point. Another important consideration in selecting the present work is that no settlement study of the district, under a system approach has so far been made. Even, if the region is poorly urbanised, the impact of urbanisation feebly visible, on the growth and distribution of rural settlements. The process of urbanisation in the district is very recent and slow. Therefore, it maintains a very limited scope for a detail study of the urban phenomena, as major controlling forces for rural settlement organisation. Like most of the Indian cultural landscapes, the transportation of the rural agrarian society and economy under the impact of urban influence, is extremely slow, in the study area. It is worthwhile to mention that a highly precise study of rural-urban interaction in the
whole of the study area, requires detail survey of all forms of urban services offered by each and every urban centres to the rural communities, which can not be carried out by a single investigator. It involves participation of a team of workers.

The present work is, thus, a modest attempt to search out a more generalised conclusion, the impact zones of the urban centres in the Dhubri district, the settlement behaviour of the rural communities with the existing urban environment and to find out the response of the rural societies towards the growth and location of urban, semi-urban and rural service centres and to establish their habitational attitude in accordance with the location of the lines of transport. The physiographic and socio-cultural homogeneity of the district, contribute to and maintain the scope for such a study.

1.3 THE AREA OF STUDY:

The Dhubri district comprising an area of 2,338 square kilometre, is situated in the south western corner of Assam, roughly between the latitude of 25°27'N and 26°15'N and longitude 89°42'E and 90°29'E. It accounts for 13,25,657 population with 1,340 villages and 7 towns. The density of population in Dhubri district was 467 persons per square kilometre, which was more than that of Goalpara (383 persons per sq.km.) and Kokrajhar (226 persons per sq.km.) districts.
in 1991. These people are drawn from diverse ethno-linguistic stock, speaking various languages and living at varied stages of socio-economic and political development. The study area is a very small part of the vast plain region of the Brahmaputra valley and is surrounded by Kokrajhar, Bongaigaon, Goalpara districts of Assam, Garo Hill district of Meghalaya, Rangpur district of Bangladesh, and Cooch Bihar district of West Bengal. It is the western part of the former Goalpara district and stands as the narrow and vulnerable corridor of the state of Assam, which is connected with the rest of the country through the northeastern part of West Bengal (see Fig. 1.1). Therefore, this part has a much strategic importance for the states of North-East India. The villages and towns form various pattern of settlements in the district. The settlement pattern of the district gradually changes, due to many fold physio-cultural factors of the area. In the primary stage these changes wholly depend upon the surrounding conditions. But, at present, due to the advancement of knowledge and civilization, which influence a great deal in this change of settlement pattern.

The evolution of various settlement pattern is noticeable in a particular region, which is attributed to a host of physio-cultural factors of the region. The role of climate and drainage in the evolution of settlement pattern is usually very significant. The variation of elevation
and relief also control the settlement pattern. In Dhubri
district, therefore, relief, soil, drainage and climate
appears to be the most important physical factors, deter­
mining the settlement pattern. All other physical factors
are of secondary importance. Agricultural pattern and
transport network are the important cultural factors, which
greatly influence the settlement pattern of the district.

Migration to Assam from time immemorial is a
wellknown phenomena. The notable races migrated into Assam
in the pre-historic period are the Austro-Asiatic, the
Dravidians, the Tibeto-Burmans and the Arians. The Monkhmer
Khasis and Syntangs of Meghalaya, belong to the Austro-
Asiatic group. The Mongolians are Tibeto-Burmans of the
Indo-Chinese group and are now represented by the Kacharirs,
Ravas, Koches, Meches, Garos, Kukis, Michings, Tiwas,
Chutias and Nagas. Large number of them still live in Assam.
The Boro-Kacharis, the Ravas, Meches, Michings and Koches
of the study area belong to the Mongolian origin. People
from various parts of India have been migrated to this and
other parts of Assam to get better means of their livelihood.
Moreover, the influx of immigration from erstwhile – Bangladeshi Former East Pakistan) and Nepal has greatly increa­
sed. All these factors effected considerably, the increase of population in Dhubri district, along with other parts of
Assam. The immigrant people, particularly from erstwhile
Bangladesh have taken settlements in low-lying char areas,
vacant grazing lands, trade and commercial places etc. All these have produced a different set of settlement with different morphological structure.

Thus in many areas new settlements have penetrated and created a complex and contrasting feature. Such a complex settlement pattern gradually developed without any plan. There are different ranks in settlements, which created local and regional disparities, socio-cultural problems among the similar rank or order or different groups of people in the same region and greatly hampered all public welfare, socio-economic and cultural development of the district.

1.4 REVIEW OF LITERATURE:

A vast number of literature on settlement Geography, particularly on towns of the developed countries have grown during the present century. In the case of rural settlement and urbanisation in developing countries, literature are still very limited. The recent contributary work of R.F. Dickinson (Dickinson, 1949) in the field of settlement geography is most important, because his paper on Rural Settlements in the German Lands is a significant study of it. Scholars like B.W.Blauet (Blauet, 1971), M.F. Decay (Decay, 1975), G.C. Hudson (Hudson, 1969), L. Mumfold (Mumfold, 1961) and Y.V. Medvedcov (Medvedcov, 1975) have produced several works in the field of Settlement Geography.
The study of settlement geography has immense significance for a country like India, but this branch of geography has received only a limited academic attention. As regards the study in Indian Settlement, credit goes to the Banaras School of Settlement Geography, headed by Prof. R.I. Singh (Singh, 1955; 1977) of Varanasi for his remarkable contribution to this branch of geography. One of his paper (1961), gives clear idea, meaning, objectives and scope of Settlement Geography and the 'Evolution of Settlement in the Middle Ganga Valley' is also his another significant paper of rural settlements. The work of E. Ahmed (Ahmed, 1962) in this line is equally important, as he described the Indian village pattern based largely on the study of one inch topographical sheets. The work of Idem S.M. Alam (Alam, 1982) and K.N. Gopi (ed.), on settlement system of India is also remarkable. The valuable contribution towards Jat Settlement and habitation has also made by A.B. Mukherjee (Mukherjee, 1953). In the study of the Sub -Himalaya region, M.M. Anas (Anas, 1953) discussed in details the various pattern of rural settlements found there. In his paper 'Rural Settlements of Muradabad', M.D. Bhattacharyya (Bhattacharya, 1965) has tried to explain in details the evolution, growth, morphology, etc. of settlements in relation to physical setting. In his book, 'An Approach to the Study of Morphology of Indian Villages', K.N. Singh (Singh, 1965) has contributed some important works on settlement Geography and has attributed a good review of current

The study of settlement geography in Assam is in primary stage, the work of N.N. Bhattacharyya, (Bhattacharyya, 1981), M. Barthakur (Barthakur, 1982), H.P. Das (Das, 1970), H.N. Sharma (Sharma, 1970), S. Chaharia (Chaharia, 1985) etc. are remarkable and the literature of the above authors and many others, which are not mentioned here will be followed by the investigator for the completion of the work.

1.5 SIGNIFICANCE OF THE STUDY:

Socio-economic and cultural development of a region basically depend upon a planned development of settlements. Settlement, either rural or urban is an aspect of cultural landscape, resulted from some socio-cultural factors. The study area 'Dhubri district', is one of the early inhabited parts of Assam. There is not any planned settlement in this district and only natural growth of settlements are seen. Such settlements have considerable impact on socio-economic and cultural development of the region. Hence, it is necessary to study those factors, which are responsible for
the evolution of such settlement patterns. The findings of such study may be used for socio-cultural and economic planning of the district.

Another important consideration in selecting the present study area is that none has yet come forward to study the Settlement Geography of Dhubri district. Therefore, the present work may provide a major guide-line for the future planners and researchers or investigators for further work to solve various problems associated with the settlements of the district.

1.6 OBJECTIVES AND ASSUMPTION OF THE STUDY:

The main objectives of the present work are:

[1] to examine the nature of settlement pattern and the physiographic control over it,

[2] to examine the influence of agricultural fields on the settlement pattern,

[3] to examine the role of transport network on the settlement pattern,

[4] to examine the role played by service centres and growth points on the settlement pattern and

[5] to find out a basic process for settlement planning, so that better socio-economic and cultural development can be made in future.
In order to analyse the above objectives, the study shall attempt to test the validity of the following assumptions:

[1] The physiographic setting of a region controls the settlement pattern. The plains of the district, which are free from flood or occasionally affected by flood, generate 'Pull Factor', for the location of settlements and large-size of settlements are generally located in these areas.

[2] The pattern of settlement in the district has direct relation to its agricultural fields.

[3] The settlement pattern has direct relation to the transport network of the region.

[4] The location and growth of service centres have considerable bearing on the settlement pattern of the area.


1.7 METHODOLOGY:

The problem is studied by the empirical methods. However, the factual informations of data are collected from Revenue Circle and Gaon Panchayat level, where the Gaon Panchayat has been adopted as a primary unit. For this type of indepth study, a detailed field work and data collection are necessary. This was done from all possible sources.
Some important data and information were collected from various official records, maps, charts, documents and publications relating to settlements. Survey and field work or field study were carried out to collect authentic information of settlements to verify the data computed from secondary sources by adopting sampling method, where necessity arises. All such data, so collected, were processed to prepare necessary maps, diagrams, charts, tables, etc. Various books, journals, records, maps etc. were consulted in the district libraries, state and Gauhati University Libraries. Some needful data and information were also collected from Census Office, Bhungagarh, Guwahati, Assam, most of which were published by the Census authority, Government of India and Assam. The historical backgrounds of the study area, were also collected and written on the basis of information, so collected from various published and unpublished records, reports, authentic sources, census handbooks, provisional census reports and economic and statistical handbooks, district Gazetteers, etc. The physiography of the area was prepared on the basis of Toposheet maps, Census and other records available in the district Gazetteers of Goalpara district. The required maps and diagrams, were prepared by applying the standard Cartographic methods. The qualitative and quantitative techniques, were also adopted, when and where they found necessary.
1.8 ORGANISATION:

The present work attempts to study the organisation of settlements and to examine the existing state of settlement pattern and relationship of rural and urban settlements, rural and other service centres in Dhubri district, on the above principles. The work consists of nine chapters organised in three parts. The first part consisting of the first three chapters is treated as the introductory part. The second part comprised of four chapters, is treated as analysis and findings on the central theme of the work. The arrangement of the chapters reflects the relationship and interaction among the rural and urban settlements of the study area. The chapters connote the broad themes employed in organising the materials.

The chapter II, deals with the historical perspectives of the study area in context of early spatial growth and distribution of settlements. The present distribution pattern is the spatio-temporal transformation of early settlements. The chapter is aimed at throwing some light on the settlement pattern of the area during the pre-British period and subsequently under the British rule, which has considerable bearing on the growth and distribution of present settlements.

In chapter III, the geographical personality of the study area has been depicted. The geographical informations considered to be relevant to the present work are arranged
under two sub-chapters - physical landscape and cultural landscape. This chapter serves as a base for qualitative and quantitative interpretation of the organisational aspects of settlements.

Chapter IV, deals with the rural and urban settlements and their spatial characteristics, which is divided into two sub-chapters, such as chapter (A) - presents the organisation of rural settlements in broad organisational rural landscape, village site, analysis on size, distribution, form, spatial arrangement, classes, shape and pattern by dispersion and concentration. This chapter also specifies spatial characteristics of rural settlements and identification and location of rural service centre and the role of service centres on settlement pattern, and analysis of spatial relationship of the rural central places with rural settlements, is also presented here. The sub-chapter (B) of this chapter also presents the organisation of urban settlements in broad organisational system, it presents the growth and distribution of urban settlements with changing political scene, growth of urban population, degree of urbanisation, pattern of growth of towns by size, combinational analysis of towns and population potential.

Chapter V, deals with rank-size relationship, inter-settlement space. This chapter also specifies the areal influence of the individual urban centre and correlate the
population interaction zones with regions of urban influence. This chapter also intends to examine the nature of spatial interaction among the urban settlements of the district and to determine their overall status rank.

Chapter VI, deals with inter urban pull, spatial relationship of urban and rural service centres to rural settlements. This chapter also contains the classification of important settlements into urban and rural centres.

Chapter VII, presents the analysis of impact of physiography, rivers, transport network and agricultural field on settlements.

Chapter VIII, examine the rural-urban relation, its population and settlements, occupational structure, rural-urban, male-female and literary differences. This chapter also analyses on the identification of areal difference in the levels of socio-economic development in Dhubri district. This chapter also includes a study on the pressure of farmers on arable land. The basic objective of this chapter is to examine the relationship between the existing economic situation, disparities and settlement organisation of the study area along with an approach to planning and rationalization of settlements.

The concluding chapter attempts to synthesis the findings and suggest the possibilities of future work in the
above line that would be of both academic and practical value of the area. It also re-emphasises the socio-cultural and economic problems associated with settlement organisation of Dhubri district, which may provide a basis for future settlement planning.

At the end of the dissertation there will be explanatory notes of certain terms and appendices.

REFERENCES


15. Idem; 'Settlement System of North-East India,' S.M. Alam and K.N. Gopi (ed.), *Settlement System of India*, New Delhi, 1982


