Chapter I
Section A

INTRODUCTION

1A.1 The Problem: Rationale and Relevance

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1A.1 The Problem: Rationale and Relevance

Historically and traditionally, geography has been dealing with region as the framework of reference for conducting regional studies, or as an end product of survey, analysis and synthesis of different elements that are related in their spatial distribution, association and differentiation. This has become the major focus of Geography under the term regionalisation. Thus geographers are mainly concerned with the space (region/area), time, and in context of development, they believe a positive change in a physio-cultural, socio-economic and politico-administrative landscape. The different level of regional studies is under taken by spatial scientists with a view to identify the spatial patterns and variations of the regional structure and their applications in planning. Hence, planning has an inescapable geographical basis (Haq and Wodeyar, 2000).

The need for planning, especially regional planning, arises because of the widespread regional inequalities. The element of space has become one of the key economic factor, and there is a growing concern among social scientists to ensure optimal utilisation of space and optimal distribution pattern of human activities. Regional planning is the instrument through which such optimality is sought to be brought about.

In the initial stages of its development in the 1930s, regional planning was generally understand to mean natural resource planning, and thus its role was confined to determining the ways and means of developing the natural resources of a region. However, with the passage of time, the emphasis on natural resource planning reduced considerably as new dimensions of urban and metropolitan planning, environmental planning, human resource and community planning, planning for
problem areas, etc., considerably enlarged the scope and content of regional planning.

Area development planning as a discipline in the academic circle has witnessed much debate. In a world presenting pictures of appalling contrasts, disparities in socio-economic development at the national, sub-national, and local levels are inevitable (Friedman and Alonso, 1964). Whatever the spatial level at which comparisons are made, the gap exists. Thus there are the richer regions and the poorer regions, and within regions, the richer localities, and the poorer localities, and so on. Consequently the terms like developed, developing, and underdeveloped have been introduced to present and identify the varying degrees, and level of economic and technological development in and between the regions. Since it is becoming increasingly apparent that, economic and social conditions have an important spatial component, the incidence of which can be subject to extreme areal variations (Smith, 1973), the integrated area development planning (IADP) has become one of the most important programme for balanced regional development by locating social and economic activities at appropriate place and over the time.

Spatial integration is regarded for overall development of micro, meso, or macro units as the case be. This helps to generate growth and development process of a region. Spatial development explains the change of spatial phenomena towards the welfare and betterment of population. In recent times a new concept has been developed. It is based on bottom up strategy (Stohr and Taylor, 1981). Subsequently, the bottom up strategy, based on selective self-reliance is gaining importance. Friedman's suggestion of agropolitan development moves in this direction. However, it
appears that \textit{spatial development} theory became further established and is becoming a viable strategy in development planning.

Since, Geography explains the system of human life in space with emphasis on the dynamics of process and structure, it is also essential to certify the dynamic influence of patterns on growth and ecological factors on which the existence of the people and the regional economy depends. The total structure developed over a landscape with such changes and transformation may be called as \textit{geochorosystem}, which highlights the system of regulation, control, and automation with its own techniques called \textit{geo-cybernetics}. The area development framework includes land type/land use structure, social and economic infrastructure, and their interrelationships both existing and projected. Therefore, it is essentially an attempt to strike harmony in relations among three elements; \textit{viz}, place (area), folk (people), and work (employment and economy), which leads to sectoral analysis through integrated approach.

To see the overall development of the area in relation to natural, human, and economic aspects, IADP plays an important role through which it would contribute something for the development of the District in particular, Division and Country in general. Thus the value of learning from yesterday is to prepare for today something better for tomorrow (Bhat, 1988).

The main purpose of IADP is to touch the maximum number of fields where there is possibility of planning for the future development. At the micro-level, geographic space provides a spatial framework, which is realistic. At this level all human settlements and man's activities in his surroundings can be plotted on a map and their spatial patterns of distribution, linkages, social services and facilities, economic activities and their interrelationship can be highlighted as a part of the evolution of
the region as a functional-economic entity. In this respect an attempt has been made by the researcher to study the above aspects of planning by selecting Tangail district in Dhaka division of Bangladesh.

Bangladesh is a country that plans by macro to micro economic indicators. Through the planned growth of various sectors of the economy; *viz.*, population, agriculture, industry, transport, education, etc. over all, indicates that despite of formal planning in post-independent Bangladesh, there are widening rural-urban, developed-undeveloped regional dichotomies. The inherent inequalities in the natural resource endowments have further increased due to the formulation of faulty policies and misplaced priorities, and a wide chasm between policy formulation and implementation.

Flood prone areas in Bangladesh are the areas with low relief and form the most fragile ecosystems. However, they are particularly vulnerable to anthropogenic influences of all kinds. Flood plains are at one and the same time profitable, hazardous, and rapidly changing locally and regionally at geomorphological environments. From the development point of view, flood prone areas are bounded by some characteristics; *viz.*, isolation, poor infrastructure, wide variation in agro-ecological conditions, etc. The deterioration of natural resources can be contained and sustainable development is possible only by adopting a holistic approach.

The district level planning is conceived as a single, holistic operation in which all-individual sectoral programmes and projects would be harmonised into a unified planning activity. Since the study, mainly deals with one unit; *i.e.*, administrative division, definitely the outcome of the study will help to develop the district's economy and it is hoped that this type of study will certainly provides enough clues.
about the problems and prospects of regional disparities and gaps in the
distribution of geographic phenomena of the study area. Therefore, it is anticipated
that the present research endeavour will certainly add to the knowledge of spatial
dimensions—*Integrated Area Development* of any area/region in Bangladesh and
Tangail District in particular.

1A.2 Objectives of the Study

In the proposed strategy of Integrated Area Development and Plan for Flood
prone area study, Tangail district, the functional integrations of demography,
agriculture, industry, transportation, natural resources, social activities, health and
amenities is dealt within the framework of spatial planning by taking *thanas*¹ as a
base. In such inter-sectoral coordination, the development of one sector will open a
venue for other. The problem of regional disparities of flood prone area in levels of
development runs contrary to the concept that a hinterland endowed with rich
resources which should result in a high level of development and equitable growth.

With these assumptions in view, the main objectives of the study comprises:

(i) to identify the existing physio-cultural aspects;

(ii) to identify the flood prone areas and to know the flood intensity,
periocicity, seasonality, and its spatio-temporal variations;

(iii) to make a critical review of identifying the regional imbalances in
economic and social dimensions;

¹ The *thana* which is a local spatial unit—the fourth tier in the administrative hierarchy of Bangladesh. Next
to national level is the *division* and hierarchically below the divisions are the *districts*, and the *thanas*. The
*thanas* are followed by unions and villages.
(iv) to demonstrate the development planning for flood prone areas, focusing on area in respect of spatial dimensions; 

(v) to identify the level and typology of development and delineate the contiguous regions;

(vi) to study the settlement pattern of the flood prone areas with respect to the population of the study unit, and to trace the spatial organisation of the settlement hierarchy and social amenities;

(vii) to know the human adjustment and adaptation to flood hazard scenario by taking a case study of village with PRA and to design the schematic models to show the existing human adjustment; and

(viii) finally, to suggest a spatio-temporal locational plan for Tangail district.

It is researcher's hope that the study in the above mentioned areas will be of great significance for the formulation of a model to the regional development and planning to the country of Bangladesh. It will help the researcher in giving wide enough canvas in which spatial variations could be studied in depth with a particular reference to the locational model, which is the prime-purpose of the research on integrated area development and regional development.
1A.3 Selection of the Study Area

Presently flood is considered as the single most significant and devastating natural hazard in Bangladesh. In fact flood hazard in Bangladesh received a prominence only after two consecutive floods of 1954 and 1955. The dimension history of flood in Bangladesh shows that occurrences are repetitive yearly and the recent flood of 1998 was most catastrophic, which alarmed the need to deal with this problem in a coordinated and planned manner. The area selected for study purpose is a part of the flood prone area of Bangladesh.

To study the spatial development, a district is adopted as a spatial unit. To begin with, the study of the district as spatial unit, from the grass roots to its apex, the various organs are interwoven and organised, where in itself is a single whole and is beneficial to its exclusive nature. In the study of spatial development, it appears that the district is a viable unit, as it maintains the consistency and derived importance from various spheres. Thus the multifaceted nature of the district tends itself to be conceived as a planning unit.

When one comes to defining regions for planning purposes, administrative convenience assumes paramount importance. This is so because in actual implementation of development plans, the existing administrative boundaries cannot be easily ignored. In fact, the administrative boundaries have to be accepted in demarcating the regions. Political realities and availability of data for specific administrative units only make this practically essential. In order to examine the factors under laying the economy of the region, a small administrative area should be taken up (Reddy, 1993). The study has therefore been conducted in the district of Tangail, which is relatively a homogenous unit from physical parameters- local relief, soil, floods phenomena, and customs of the people as well where in the
regional concept is assumed for analysis where heterogeneity is found on human's actions, and in interactions.

The flood prone areas are the most notable zones of human interaction with erratic nature of floods. The study area is also no exception to this. The choice of the area under investigation has been influenced by several considerations. This kind of distinctive geographic personality of Tangail district has made the researcher to select this area for an integrated approach study.

The greater part of the surface area of Tangail is subject to permanent or seasonally occurring inundation. Annual flooding represents an essential factor sustaining many biological communities and is the main media for energy flow and nutrient and material transfer through the ecosystem. The Tangail district of Dhaka division is much affected by floods because of its strategic physiographic location; i.e., the area is concerned and webbed by the major rivers namely Jamuna and the regional rivers like Dhaleswari, and Bangshi. An area of 2,676 sq.km of the district (78% of the total area) is affected by the floods, and has been considered as flood prone area. The flood occurrences and its effects are not uniform and varies in many respects. It has a spatio-temporal variations in respect to intensity, duration, seasonality, periodicity, flood damages, etc., which have created both pain and pleasure in this part. The human occupancy too are intervened with this erratic natural disaster. The human activities; viz., agriculture, industry, health, occupation, settlement pattern, transportation, etc., are developed, and there is a range of adjustment to this natural calamity in the study region.

Tangail district comprises thick population with an average density of 879 persons/sq.km (1991) and the thick populated region of world; i.e., Dhaka, mega city and capital of Bangladesh is near to the Tangail District. The existing limited
resource of this area has to sustain itself and its carrying capacity is affected by the pull and push factors of the mega city.

Apart from these considerations, Tangail district is chosen for the first phase of the study as a matter of convenience. The researcher also felt that the feasibility of data is must for such a unique area.

The discussed distinctive factors and conditions have influenced the researcher to select the Tangail district for study purpose on integrated approach.

1A.4 Research Design and Organisation

To study the meaningful multifaceted spatial development, it is proposed to derive the research design based on sound philosophy and scientific methodology. It is truism that no research results are any better than methods by which they are obtained. A short sketch of the whole research planning is outlined sequentially as shown in Fig.1A.1

The present study in its spatial view regards aspect of some sectors of development in IADP as viewed in a multi-level (village, district), multi-sectoral (agriculture, industry, transport, etc.), and multi-sectional (rural, and urban) concept. In the strategy of integrated approach for development and plan of Tangail district, the functional integration of human resource, natural resource, agriculture, industry, transportation, and social facilities (education, health, etc.) have been dealt within the framework of spatial organisation.
Fig.- 1A.1: Diagrammatic Representation of Research Design

- Literature review
- Brainstorming and discussion
- Organisational inquiry

Statement of the Objectives

Selection of the Study Area

Reconnaissance Activity
- Qualitative inventory
- Organisational inquiry
- Literature review

Data Sources
- Basic data (Primary sources, Satellite imagery)
- Secondary data

Data Collection

Data Processing and Analysis

Findings and Planning
1A.4.1 Database

For any study, consultation and usage of data is basic prerequisite. The researcher’s main investigation is however, to study on the behaviour of the people of the district regarding space preference, economic and social activities, etc. For this purpose in the first instance, a comprehensive inventory of resources of this district has been done by all means.

The study is based on both primary and secondary sources of data. Primary data is based on actual fieldwork through questionnaires and by the personal interview method. Remotely sensed data product from SPARRSO in the form of standard false colour composite image of RADARSAT of 7 and 31 July 1998, and 10 August 1998; GMS-5 data, NOAA of 18 August 1987, and 15 September, 1988 are used. Topographical sheets on 1: 50,000 scale bearing no. 78H/10, 78H/13, 78H/14, 78H/15, 78H/16, 78L/3, 78L/4, 78L/7, 78L/8 and 79E/13, thana base map on 1: 50,000 scale of the study area produced from Local Government Engineering Department (LGED), and informations collected from Bangladesh Bureau of Statistics (BBS), Zilla Statistics Office and Agriculture Office are also used for a collateral base. Other supporting data like thematic maps, project reports etc., are also consulted for effective results.

1A.4.2 Methodology

The study is attempted at two area levels- at the district, and at the thana level. The district level is oriented for an assessment of (sector wise) spatial patterns of settlements, economic functions, their importance and the hierarchic nature of the space relations. This provides a larger regional setting in which the relative importance of functions of different sizes could be ascertained at all levels. The
study of regional structure is attempted to both the area levels with suitable geographic methods. For this kind of study, satellite imageries, and collateral data are used along with primary sources, to delineate the boundary of flood occurrences/flood zones.

The first phase consists of collection of conventional data and their evaluation. The second stage involves preparation of a set of inventory using remotely sensed data on flood areas, land character, etc. The existing land cover; agricultural land use, an integrated land mapping giving high priority areas for development of agriculture; soil conservation; settlement pattern; transportation, etc., are covered.

Satellite imagery is used to identify the flood prone areas of Tangail district. Flood layer for different flood years are prepared from multi-date imageries, and integrated using GIS techniques to obtain flood zonation of the district. Preparation of flood map is based on visual interpretation of imagery, which is based on RADARSAT, NOAA WIFS, and the imageries of 1:50,000 scale. Visual interpretation keys are prepared taking into account the standard interpretation keys; viz., tone, colour, texture, pattern, association, size, shape, topography, and temporal behaviour of objects deduced from multi-date satellite images.

Information on various aspects derived from collateral data, which are integrated and analysed. Based on the result of these studies an attempt is made to highlight the basic strategies at district level planning- viewing it essentially as an exercise in formulating and implementing the plan in terms of its areal and locational components. For this kind of study the chart has been designed (vid., Fig.-1A.2). The field photographs of different features are also used. The standard statistical techniques, specialised formulae, and algorithm are used to enhance the interpretation. The cartographic techniques are also used for effective visual impact of spatial data.
Fig. 1A.2: Flow Chart Showing the Methodology for Identifying and Mapping the Flood Zone Using Remotely Sensed Data
The geo-socio-economic conditions of countries in the Indian sub-continent are almost similar. Since Bangladesh is a part of Indian sub-continent, the geo-socio-economic conditions of her are almost similar to India. In this view the researcher has adapted some of the examples of Indian context in his studies wherever necessary. Thus the methodology, with deep-rooted perspectives, facilitated geographic enquiry to accomplish this study of integrated approach.

1A.4.3 Research Organisation

The contents of the study are the outcome of overall approach made by the researcher. The entire study comprises into nine chapters.

The first chapter – Section A makes a prologue to the study of the rational and relevance, objectives, selection of the study area, database, methodology, research organisation, and literature review. Each inquisition of the study is followed by relevant conceptual or some form of technical structure. The theoretical and conceptual issues are included in this chapter as a Section B, which consists planning: features and typology, levels of planning, meaning and nature of IADP. At the end of the chapter operational definitions are given.

The second chapter portrays to bring out the geographical background of the study area, which includes the location and extent of the study area, formation and administrative set up, historical background, physiography, geology, soil, climate, drainage system: major rivers; and interior rivers, and vegetation.

The third chapter designs with a perspective on floods of Bangladesh with special reference to the study unit. It deals a brief history of flood occurrences, floodplain,
flood characters, and flood zonation. All these highlight the distinctive regional characters of Tangal district.

Chapter fourth concerns for an appraisal of demographic dimensions and human resource of the district, in which spatial pattern of population growth – thana wise growth of population, spatial variation of rural and urban population; population density, population composition – sex-ratio; population by religion; literacy, measures adopted to family welfare programmes, land/population ratio, occupational structure – functional nature of the district; spatial pattern of man/resource density, potentiality of human resource and energy value, and population projections are dealt.

Chapter fifth deals with an appraisal of the agricultural resources as follows: land utilisation, agro-ecological zone, land use efficiency; per capita cultivable land resource, cropping pattern – spatial analysis of individual cropping pattern; and mixed cropping pattern, cropping intensity, crop combination, area under irrigation – irrigational intensity, agricultural efficiency – cereal; pulses; oilseeds; cash crops; and aggregate efficiency. For cereals, sufficiency, deficiency, and efficiency (estimated) are attempted.

Chapter sixth, Section A, attempts the appraisal of natural resource endowment regions and economic regions of the district which comprises of individual natural resource endowment regions – land resource; soil resource; forest resource; animal resource; water resource; mineral resource; and free access natural resource, consolidated natural resource endowment regions, and economic regions. Chapter sixth, Section B, slates an appraisal of industrial development which comprises the locational factors; regional characteristics and potential of industries – sources of raw materials; location quotient; and intensity rating, growth and spatial distribution
of industries – agro-based; forest-based; and livestock-based industries, size of employment in different categories of industries, sick industries – parameters to identify the sick industry; and remedies for sick industries, environmental pollution and suggestions for future developments, and proposed industries.

Chapter seventh devoted to appraisal of transport development, which involves genesis of transportation, composition and institutional characteristics of the transport-sector, transport-infrastructure-road and inland water transport infrastructure, classification of roads, road density, road accessibility, position of registered vehicles, passenger and freight traffic, and problems of road-transport. The proposed required roads of the district are also attempted.

The Chapter eighth comprises Section A, Section B and Section C. The Section A deals with the study of spatial organisation of settlement pattern and amenities which consists of urban and rural settlements, amenities like education; medical; communications; and post and telegraphs; electricity, hierarchy of central places – measurement of centrality; population and centrality score; settlement hierarchy; and identification of hinterlands. The Section B is devoted to analyse the human response and adaptation to the floods. The flood affected village has been selected to derive the conclusion. The followings have been dealt for this purpose: hot-spot characters, seasonality of floods, village transect, response and adaptation of people to the flood hazards. The planning implications are carried out in Section C, which is concerned with the planning implications for Section A and B aspects, as planning implications I, and planning implications II respectively.

The last chapter; i.e., ninth concludes the findings of the study and also stresses the recommendations for LADP for the study region.
The researcher is fully aware of the fact that the non-availability of certain data has made this study rather sketchy on certain aspects. Whatever possible, the researcher has made use of the information available for recent years. For obvious reasons, it is not possible to include all aspects of the vast field of integrated area development for the entire district. Under these circumstances study has to be restricted on basic aspects and in such a selection there can always be a difference of opinion.

1A.4 Literature Review

The approach to regional planning can be either *total* or *selective*. In the *total* regional planning approach an attempt is made to develop an economy of all regions, while in the *selective* approach the attention is concentrated on the development of some regions only (Chand and Puri, 1983). Several interrelated yet distinct terms; *viz.*, *regional planning, regional economic planning, regional analysis, regional science, regional economics, regional economic analysis* (Richardson, 1973), etc., are in vogue in regional studies. A theorist would perhaps like to stress some difference between regional analysis and regional science by suggesting that the later is a part of the former for emphasizes a scientific approach to regional analysis: regional analysis would be a science (Chand and Puri, 1983, p.57). The leadership has been provided by that doyen of regional scientists, Prof. Walter Isard - *the father of Regional Science*, who has developed analytical tools for regional analysis and his magnum opus *Methods of Regional Analysis* (1960) is a ‘classic’ in regional science literature. *Regional economic analysis* can be defined as a study of the *economic aspects* in regional analysis and the regional studies that adopt the *economic viewpoint* can be termed *regional economics*. Similarly, regional economic planning will constitute the *economic content* of regional planning.
Within the regional planning studies UDP has got much importance since it approaches directly to the spatial and economic planning. In the strategy of UDP for Tangail district, the functional integrations are dealt within the framework of spatial planning organisation by taking thana as a sub-micro-divisions. A good deal of confusion also exists in the planning literature regarding micro-level planning, area development, integrated area development and so on. In this regard many researchers and academicians; viz., Rahman (1965), Rashid (1965), Friedman (1966), Skeffington (1966), Sen (1971), Islam (1972), Rao (1975), Bhat (1976), Nanjundappa (1976), Melvin (1978), Glasson (1978), Addo (1979), Grossman (1981), Park (1981), Jurgen (1982), Leland (1987), Misra (1989), Misra (1990), and others have attempted and discussed a great deal the conceptual aspect of geography of development and planning which is a new advanced branch of economic geography. Most of the academicians and researchers, for the study of integrated area development, either sponsored by the government or individuals have preferred a clear-cut administrative unit; i.e., district, thana, and development block for effective planning. The Government of Bangladesh too has introduced different hierarchies for sectoral developments.
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Stohr, Walter B. and Taylor, Fraser D.R (1981): Development from Above or Below? The Dialectics of Regional Planning in Developing Countries, John Willey and Sons., New York.
Chapter I
Section B

THEORETICAL AND CONCEPTUAL ISSUES (PROLOGUE)

1B.1 Introduction
1B.2 Planning: Features and Typology
1B.3 Levels of Planning
1B.4 Meaning and Nature of IADP
1B.5 Operational Definitions
1B.1 Introduction

Geography, broadly speaking, is the science of space-occupying processes and events. Every process of event has some sort of spatial manifestation and Geography may be conceptualised as a discipline, which transcends the conceptual and empirical boundaries of realities and integrates that knowledge into a useful and meaningful way (Coffey, 1981). Thus geographers are justified in examining any phenomenon of processes which they feel can be elucidated by the application of a spatial perspective (Basu, 1990). The researcher feels that, the spatial perspective should be viewed on planning orientation, which consists of many-sided views and its proper adjustment to the situations. In this preview the following discussion has been carried out to have a clear understanding.

1B.2 Planning: Features and Typology

Planning today is supposed to be the sovereign remedy of economic ills. It is the Ground Panacea of modern era (Brain, 1974). Whereas planning region is distinct from other regions, either geographical or administrative. Therefore, there is no planning without area, but there can be areas without planning. Planning and plans are the two faces of developmental aspects through which spatio-economic progress can be achieved in an area (see, Fig.-1B.1).
Thinking of things

Choosing

Not only provides basis for plan but also the foundation from which plan can be flexibly implemented

Mental process of thinking what is desired and how it will be achieved

Planning process need not result in written plans

Specifying in precise detail exactly what is to be done to meet a specific objective

— Blue print of action

— Result of planning

— Without planning is waste of time

— Commitments to specific a cause of action growing out of the mental process of planning

— Can be written or expressed orally

— Ultimate end of the planning
There are many definitions of planning quoted by economists, geographers, sociologists, planners; e.g.,

- planning is... in essence, an organised, conscious and continual attempt to select the best available alternative to achieve specific goals (Waterson, 1965);
- planning is “the national art of getting future things done” (Diamond, 1983);
- planning is primarily a way of thinking about social and economic problems, planning is oriented predominantly towards the future, is deeply concerned with the relation of goals to collective decisions and strives for comprehensiveness in policy and programme. Whatever these modes of thought are applies, there is a presumption that planning is being done (Friedman, 1964).

Individual definitions of planning are numerous, but a general theory of planning has not yet been quoted. Certain alternative types of planning of some relevance to the regional form can be identified within the general framework (Glasson, 1978). Planning has two main objectives – a) achieving an overall growth of the society, and b) removing socio-economic disparities through proper explosion and utilisation of all types of resources whether natural or human.

Major features of general planning include a sequence of action, which are designed to solve problems for the future. The approach of planning vary but tend to be primarily economic, social and spatial; the planning period, the time horizon of ‘the future’, also varies according to the type and level of planning; but all planning involves a sequential process which can be conceptualised into a number of stages; such as – the identification of the problem, the formulation of general goals and more specific and measurable objectives relating to the problem, the identification of possible constraints, the projection of the future situation, the generation and evaluation of alternative courses of action, and the production of a preferred plan, which in its generic form may include any policy statement or strategy as well as a definitive plan (Glasson, 1978, p.35). Such a representation is shown in Fig.-1B.2. Activities are represented in ovals, while measures produced by these activities are represented by rectangles.
Fig. 1B.2: Geo-economic Planning as a Cyclic Process

- Preliminary design
- Evaluation of alternatives
- Preliminary evaluation of impacts
- Design: generation of alternatives
- System analysis
- Exogenous forecasts, assumptions, etc.
- Public policy instrument settings (inputs)
- Planning activities
- Measures

Goal indicators (output)
Problem statements
Target achievement

System state: physical parameters, predictions, understanding and monitoring; sectorwise, organisations, individuals and households. Models and Information Systems (macro-meso-micro level).
Within general planning framework, there are different types of planning. Certain basic distinctions between the various types are particularly useful in analysis of regional planning. The first and perhaps most fundamental distinction – and one of which has been a constant source of dualistic in regional planning is that of physical planning and economic planning. Physical planning is the planning of an area’s physical structure – land use, communications, utilities and so on, and has its origins in the regulation and control of town development, which outstripped the ability of the market mechanism to cope. Economic planning is concerned more with the economic structure of an area and its overall level of prosperity. Unfortunately many researchers observed that physical/economic division as absolute, which is misconceived because physical planning is an important means in the implementation of plans and vice versa (Glasson, 1978, p.39). Allocative, and innovative planning are the names given to two instrumental models of planning divided according to ‘function’ or ‘area of concern’. Allocative planning is concerned with co-ordination, the resolution of conflicts ensuring that the existing system is ticking over efficiently through time in accordance with evolving policies. Hence, it is sometimes known as regulatory planning. Innovative planning, on the other hand, is not merely concerned with planning for the efficient functioning of existing systems, but is more concerned with improving/developing the system as a whole, introducing new aims and attempting to mould change on a large scale. For this reason, it is sometimes known as development planning (Glasson, 1978, p.38). Multi or single objective planning, whatever its type or form, planning has certain aims, or in the planner’s jargon, goals and objectives. The distinction between the latter is clearly made by Young (1966): ‘a goal is an ideal and should be expressed in abstract terms’; ‘an objective is capable of both attainment and measurement, its
inherent purpose is explicit rather than implicit. Thus indicative and imperative planning relates to the method of implementation of planning. Indicative planning merely lays down general guidelines and is advisory in nature, imperative or command planning involves specific directives.

The planning typology is particularly more relevant at regional level. Thus regional planning usually involves both physical and economic planning. Some regional plans may be purely allocative, but the most cases include certain innovative elements.

1B.3 Levels of Planning

Geographers are familiar with the concept that regional or area approach serves to coordinate the development planning activities carried out by individual sections; and that it could be the basis for planning at different regional or local levels—according to the importance of economic activities whether they are of national, regional or local level importance. For this purpose, the decentralisation in the planning/developmental course is the serious attention of the planners and researchers. Thus devolution of administrative powers from State to sub-regional level is necessary for effective implementation of this strategy (Bhat, 1988). For the decentralisation, essential principle of spatial organisation of the economy will be dealt at the macro, meso or micro levels. The approach to spatial integration should be attempted at different scale of the geographical surface ranging from the micro (comparable to the size of a district and below) to macro levels (group of a states or parts thereof).

Planning should be at multi-level. Multi-level planning corrects regional imbalances and helps to reduce ill developments. The multi-level planning will have more
multiplied effects. As L.K. Sen has pointed out, multi-level planning helps in modifying national priorities and reflects the correct state of affairs at the grass-root level. Micro-level planning takes a whole hierarchy of central places and its hinterland as its focus. The emphasis in micro-level planning is on planning from the grass-root level upward to a clearly defined region. In many cases, this region may be conterminous with the district. The location of specific socio-economic activities and their interlinkages over a region are major concerns of micro-level planning (Sen, et.al., 1971). Macro-level planning, on the other hand, starts at the top at the national level and is broken down into segments suitable for regions. It is obvious that these two methods of planning must complement each other. Without national or regional priorities no micro-level planning is possible. But without micro-level planning there cannot be integrated development of an area and proper implementation of plans. Optimum and judicious utilisation of local resources is the main objective of micro-level regional studies (Prakash, 1988).

In most cases a district will form a sub-region or a combination of a few sub-regions belonging to different regions. The added advantage of a district is that it has a well-integrated administrative structure for implementing micro-level plans (Krishnamurthy, 1972). K.V. Sundaram also opines that, for area development programme, a district would be a most desirable level for co-ordination. The district level planning is a very important vehicle in linking up various developments cogently and within a level defined frame up of action (GOK, 1971).

The decentralised planning concept is extended to the level below the district to include taluk/thana, block or sub-block, and the village levels (Basu, 1990, p.32). There are also some other advantages in taking the district as a unit of area planning. Firstly, this will give us a manageable number of administrative units in
the State/Division for area planning. Secondly, there exist already an organisational set up for the preparation and execution of development plans at the district level. Thirdly, most of the data needed for area planning would be available at the district level easily. Moreover, district is sufficiently close like tbana to the rural area to take into account local problems and aspirations.

It is true that no region on the earth surface is equal in all respects there being areal disparities among the region/area. These areal disparities could be balanced only through an integrated area planning, where it aims overall development of an area. On the other hand it is also true that no plan can achieve pure equalisation among the region/area, because of the regional disparities (Isard and Reiner, 1961). But area planning leads towards greater equalisation among the regions.

1B.4 Meaning and Nature of IADP

An IADP is a recent phenomenon. The concept of Integrated Area Development in its true scientific meaning has gained currently only during the last few decades especially in Geography. Planning for integrated area development has been broadly discussed by planners and academicians of different disciplines in different ways but there is no consensus on its definitions (Sen, 1971, p.4). The term 'integration' is rather a nebulous expression and has been interpreted in many ways (Chang, 1980). The concept of integration is mainly concerned with the overall development phenomenon. Thus one could find the verb ‘to integrate’ literally means to make up as a whole to make entire. This kind of development planning means the spatial planning or area planning in relation to socio-geographic and geo-economic aspects. The concept of integrated area development suggests a framework for decentralising economic and social activities by locating specific functions in appropriate places. It provides a meaningful infrastructure, which can
attract and sustain a diversified but a growing economy. Prof. L.S. Bhat observes regarding integrated area development planning that the concept of IADP lays stress on spatial integration of development activities.

Integrated area development planning requires mainly two types of integration; i.e., functional and spatial (Misra, 1980) – which are themselves interrelated (Sen, 1971, p.6). The functions, which are basic for economic development directly or indirectly, should be integrated. In this approach all the sectors; viz., population, agriculture, industry, transport and communications, health, education, settlement marketing, etc., are interconnected. This kind of spatial relationship leads to change in one sector affects the other sector. For example in education, primary school is the lowest level followed by high school, college, and university. Similarly, health services will be catered at various levels. Functional integration implies integration of the functions of the same level. Similarly, there is an established pattern in the dispersal or concentration of activities in space. Hence, spatial integration is also a necessary condition (Ross, 1955). The interrelationship among various socio-economic activities depends a great deal on where they are located. If spatial relationships among existing activities are established, there will be a definite pattern in the dispersal or concentration of activities in space.

The above discussion highlights that the spatial integration means integration of units and their functions with each other and also with the higher level planning units for all social and economic activities in the region for overall development. In the context of development when new activities or functions are proposed, the locations of such functions become extremely important. An appropriate location of a new function may start a chain reaction of development with far reaching effects. An understanding of functional interrelationships in space, therefore, goes a
long way towards the development of an area. This is the idea behind the concept of integrated area development. Integrated area development thus refers to the appropriate location of social and economic activities over a physical space for the balanced development of a region. Hence, planning for integrated area development requires:

(i) spatial integration; *i.e.*, integration of spatial units with each other and also with the higher order places;

(ii) functional integration; *i.e.*, integration of spatial units with the necessary socio-economic and institutional functions and provision of adequate framework for development; and

(iii) economic integration; *i.e.*, integration of the spatial units with the developmental characteristics of the region; *i.e.*, resource base, input use and infrastructure development.

Thus, integrated area development seeks to achieve a sort of spatial, social, and economic integration. Thus, the major pre-requisite for formulating an IADP is the systematic evaluation of both human and material resources in the region. Along with these concepts the main concern of the integrated area development is rural development as the rural area are the basic roots wherein mainly under-development is observed, which are the pre-requisites for the economic development. The setting up of socio-economic and institutional framework is not merely sufficient for achieving growth and development unless they are dispersed spatially and linked properly. Thus, the concept of linkages should be extended from functional to spatial. I. K. Sen discussed the concept of integrated area development in a much greater detail. According to this author, the twin aspects;
\textit{viz.}, functional, and spatial integration, means appropriate location of social and economic activities over a physical space for achieving balanced regional development. IADP is a function of economic geography, through which disparities and inadequacies of an area or region can be eradicated or reduced by the application of geographical knowledge or skills to balance the spatial distributed phenomena for the development of an area or region.

1B.6 Operational Definitions

Drawing the above theoretical and conceptual discussion, it seems to reasonable to place some operational definitions as the basis of the present thesis are as follows.

\textbf{Integrated Approach}: lays stress on spatial integration of development activities. It is against this background of the conceptual framework that the present study is an attempt to highlight the spatial aspects of the strategy for \textit{integrated area development} of a study unit; \textit{viz.}, Tangail district on \textit{thana} base.

\textbf{Planning}: a collective idea to solve the prevailing problems and foresee the future and make the proper decision for an area development.

\textbf{Development}: a positive and quantitative as well as positive and qualitative change.

\textbf{Spatial Planning}: denotes the introduction of space dimension to the sectoral process of planning. In this context the concept of integrated area development has gained much wider acceptance.

\textbf{Floodprone Area}: low-relief area of valley floor adjacent to a river, which is inundated by water during floods and made a range of adjustments.
References


