

**BANGLADESH UNIVERSITY OF ENGINEERING
AND TECHNOLOGY**

**GROWING URBAN CENTRES IN BANGLADESH
A SOCIAL ECONOMIC AND PLANNING ANATOMY**

A THESIS

SUBMITTED TO THE POST GRADUATE DEPARTMENT OF PHYSICAL PLANNING

**IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF
MASTER OF PHYSICAL PLANNING**

BY

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THESIS

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A SOCIAL, ECONOMIC AND PLANNING ANALYSIS

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Preface

The topic of study is Growing Urban Centres in Bangla Desh - a social, economic and planning shafiq, involved in nature and in magnitude, that it is difficult for the author to do proper justice with a short time period. Each and every town centre poses a real threat of problems to study and analyse its growth and development process. Each is beset with its unique physico-economic setting needs to be studied separately.

The scope of this study was originally meant to be much wider covering the whole field of urbanisation in Bangla Desh. The author acknowledges his limited success and deals with the all conditions prevailing before March, 1971. Difficulties were there of different types and significances, like, availability of data and their reliability, availability of land-use map and their validity at the present perspective and the other limitation was time. But the greatest difficulty, which was almost insurmountable to the author, like, his other fellow seven crores Bengalees, was due to the cruel army crack down in Bangla Desh causing massive destruction of life and property.

The statistics of devastation, both, physical and material, are being prepared and yet to publish. But it is quite evident that the whole economic, physical and social set up of our urban as well as rural settlement went under a considerable termoil and catastrophic change. Every square inch of the soil and every citizen of Bangla Desh, directly or indirectly are affected due to the ravages of war of independence.

So, any specific recommendation for future planning without the careful studies of existing situation would be subject to various limitations and

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qualifications. At this, the author expresses some general thoughts on the existing problems of physical planning in Bangla Desh without making any concluding remarks.

He also coined the so called independence of 1947 as 'partition' and the present glorious achievement as 'Independence' (from December 16, 1971), and former East Pakistan, as reality Bangla Desh.

The subject as already said, has many dimensions and the present study makes only a modest beginning in qualifying some aspects of urbanisation. The author also wishes sincerely that the study will be supplemented later by him and other interested personalities in this field with an analysis of other available facts to quantify all the aspects of the problem and to find out an optimum solution.

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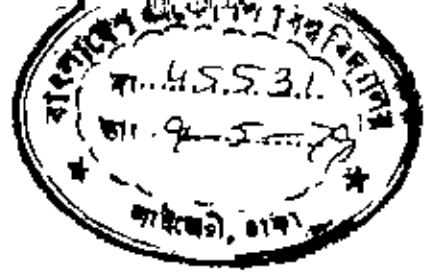
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CHAPTER : ONE

INTRODUCTION

The People, Yes,
Out of what is their change
from chaos to order
and chaos again ?

- Carl Sandburg



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A. BACKGROUND OF PHYSICAL PLANNING

The twentieth century will be recorded by the future historian as a magnificent era in the history of human civilization due to its diverse contributions to the field of science and technology, social and economic development and the strategy of political organisation resulting into a new look towards life. Ours is the Age of New Nations, mass society and global interaction. The convulsive emergence of the colonies into independence and their subsequent struggle to join the rank of prosperous, powerful and peaceful nations, is the most remarkable revolution of our time. A good number of developing countries in Asia, Africa, Latin America and some European countries have embarked on development planning to cross the hurdle of stationary equilibrium of under-development.

No race is without toil. The physical, economic and social distress bound up with the over growth of urban agglomeration are common in all developing countries of the world, but the condition in South-east Asia is, perhaps, the worst. Poverty, hunger, disease, slum, illiteracy and lack of opportunity for self-development have been lot of a large majority of people in under developed countries. Poverty there is old, but the awareness of poverty and the hope that something can be done about it are new. In fact a revolution of rising expectation is currently sweeping in under developed world.¹

1. K.K. Dewett : Modern Economic Theory
(New Delhi, 1963), P.757

Planning is an intelligent forethought and organised effort to make human life fuller and richer through the process of harnessing and utilizing limited resources for attaining the best alternatives of unlimited objectives.

Economic planning generally means setting up physical targets, the practical attainment of which will mean a more desirable state of affairs that attempts to have a sustained increase in percapita real income. It will help to increase the standard of living and to attain higher social welfare which the entire system of the study of economic planning aims at.

In recent time a major constituent of that organised thinking has emerged in the name of physical planning translating the economic constraints into the physical form to cater the need of living environment. Economic development has concrete manifestation in space as it involves changes in activities and their spatial relationship. For example, establishment of an economic activity, say, a factory, entails parallel investment in public utilities, road, transport facilities, houses, sanitation, schools, hospital, etc. As in many cases these investments are not seen as an aggregated or coordinated by a physical plan, the total capital requirements are usually under estimated, and hence physical environment starts to deteriorate.²

2. I.M. Robinson : "A Comprehensive Regional Physical Planning : A Sound Pattern of Future Urban Growth in Pakistan.", (Problems of Urbanisation in Pakistan, Karachi, NIPA, 1967)

Economic plans generally concentrate on capital use. They do not include plans for the use of land, key construction material, and a desirable spatial organisation of various activities.³ Physical planning deals with the planning of total living environment which is composed of land, physical structures and various activities, social set up and economic behaviour of the people. It is therefore the graphic expression of a nation's economic and social policy and is related to distribution and redistribution of production phase of nation for better use of people, resources and production in a desirable physical environment.⁴

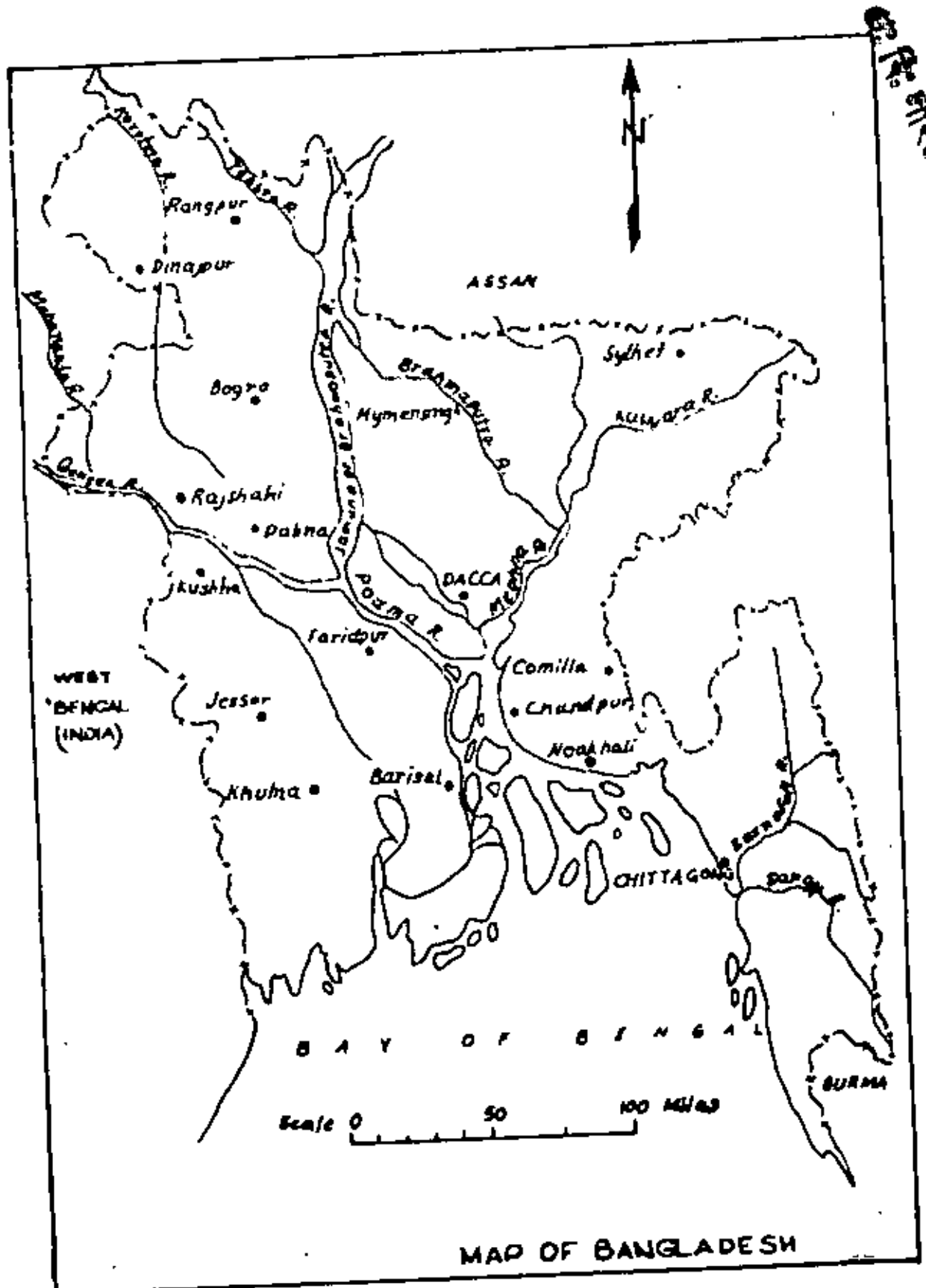
So, the need for planning of the entire physical environment in which people live, work and seek outlets for social, recreational and cultural needs is a must for the welfare and progress of the society.

This led to the evolution of the concept of physical planning within the frame work of which optimum allocation of resources : men and material, is made, has added a new dimension to the National Planning Bodies. It is popularly regarded as the science of urban and regional growth and aesthetics of civic design. In real sense it gives proper weight to every square inch within national topo-sheet : urban and rural alike.

At first the profession was mostly considered the job of civil engineers and a bit later, of architect, but soon the students of social science and public administrators understood the real crux of the problem and came forward to accept the challenge of providing optimum environment for living to the people. The goals

3. Ibid : A.F.A.Museain and Khalid Shibli
Urbanisation and Urban Development

4. Qasruddin Ahmed: Regional/Physical Planning of West Pakistan
Third Seminar on Architecture, (Dacca, Pakistan Council, 1968)



Dr. S. S. Chatterjee

MAP OF BANGLADESH

of planning is both social and economic and the ultimate emphasis is on the physical development of the community through rational organisation and use of man-made environment based upon a knowledge of behavioural science, technology and insight into man's aspiration and opportunities. In a word, physical planning makes its contribution in the integrated application of knowledge from diverse disciplines.

B. BANGLA DESH, THE LAND : A PERSPECTIVE

Boundaries And Spatial Relationship : Bangla Desh, the youngest sovereign state in the world and former East Pakistan, was under the domination of Pakistan occupation forces for 24 years and over the glorious War of Independence by December 16, 1971, at the heaviest cost of bloodshed history ever recorded.

It lies at the northern end of the Bay of Bengal roughly between $20^{\circ}30'$ and $26^{\circ}45'$ north latitude and $88^{\circ}0'$ and $92^{\circ}50'$ east longitude. It is almost completely surrounded by India with a common frontier with Burma for short stretch on the south-east.

The country has an area of 33 million acres of which cultivable land is about 22 million acres⁵. (Map 1).

Geology And Topography : Bangla Desh consists primarily of delta formed by the thrice great rivers - the Ganges, Brahmaputra and Meghna and their hundreds of tributaries. The dominating features of the topography is the extreme flatness of the country in general. In elevation the land slopes gently from about 200 ft at

5. Nafis Ahmad : An Economic Geography of East Pakistan (Sec.Ed.London, Oxford University Press, 1968) PP 13-40

the north-western boundary to 50 ft at 200 miles and only a few feet above mean sea level at the sea coast. There are only a few hills on the north-east and south-east whose elevation ranges from one hundred to approximately 3,000 ft. above sea level⁶.

The geological structures of the country is simple. It stretches almost over the great buried depression, filled with alluvium deposited by the rivers.

General Problems And Economics :

(a) Agriculture : Agriculture is the dominant activity of Bangladesh and vast majority of population depends entirely on it. But the country is running deficient in food and has to depend on import of food grains from abroad. This is due to lack of irrigation facilities, agricultural pursuit is generally seasonal mostly confined to the wet season and optimum use of land has not been possible.

Table 1. 1
IMPORT OF FOODGRAINS INTO BANGLA DESH

Year	Import of Rice			Import of wheat and wheat products			
	From West Pakistan	From abroad	Total	From West Pakistan	From abroad	Total	Total Food-grains (in 000 tons)
1960	83	319	402	3	173	176	578
1961	95	262	357	-	187	187	544
1962	75	195	270	57	455	512	782
1963	328	237	565	2	917	919	1484
1964	126	107	233	-	219	219	452
1965	140	51	191	31	759	790	981
1966	279	138	417	-	417	417	834
1967	191	171	362	-	723	723	1085
1970	130	211	341	-	804	804	1145

Source : Bangla Desh Observer, Dacca, Feb. 20, 1972.

6. Ibid, pp 13-40.

All the available lands that can be used for cultivation are already under plow and there is hardly any scope of increasing the area. Yields are low and crop damage by floods are frequent. Feeding of an ever increasing population has been a pressing problem of the country.

Inter-relationship of industry and agriculture is very close in the country because most of the domestic raw materials for processing are from the agricultural fields and forests. Industrialisation has started in this country late with a skeleton scale, due to the colonial exploitation of the past.

(b) Flood : Being situated at the confluence of the three great rivers annual floods here, for centuries, been considered normal in Bangla Desh. The people have learned to adapt themselves to these conditions by dwelling in habitation set on artificial earthen mounds above flood waters and agricultural practices and cropping pattern have been adjusted to the normal conditions of rainfall and flooding⁷.

But when floods are excessive in depth, rise to rapidly, come to early or late or are too prolonged, extensive damage is caused. The areas inundated rice crop losses in most recent past floods are as follows :

Table 1. 2.
FLOOD DAMAGES IN BANGLA DESH

Year :	1954	1955	1956	1962	1970
Flooded area (in sq. miles)	14,200	15,000	13,700	13,800	14,600
Estimated rice crops losses (in Mn,Rs.)	120	129	218	408	475

Source : The Pakistan Observer, Dacca, Oct. 12, 1970.

7. EPWAPDA : Master Plan, Vol. 1 (International Engineering Co., California)
Dacca PP 3 - 36

(c)Cyclone and Tidal Waves : Cyclone and tidal waves in the coastal district is another menacing problem in the country. The cyclone storms generally occur before and after monsoon season. They originate from low depression in Bay of Bengal created by warm southerly air mass from the sea meeting colder northerly air mass. Winds over 120 mph with storm surges upto 20 ft. above the sea level are common. These cyclones cause wide spread devastation in their wake with colossal damage to crop; property, loss of cattle and human life.

Table 1. 3
CYCLONE IN THE DECADE (1960 - 70)

Year	Time of occurrence	Velocity (mph)	Height of the tidal waves	Loss of lives	Remarks
1960	Twice	130	20	5,149	-----
		130	15		
1961	Once	92	10	11,486	-----
1963	Once	135	12	11,520	-----
1965	Twice	100	---	19,297	-----
				873	
1966	Once	---	---	15,000	11 lacks people affected
1970	Twice	103	20	309	Loss of Property Rs.185 crores.
		150	20	2,000	

Source : Pakistan Observer, Nov. 14, 1970 (Dacca)

The figures plotted on the two above tables are by no means exact but they provide an indication of the exhaustive losses of lives and properties. During the year, '70 the province has been badly affected by cyclone twice within a period of month.

Social Scope : Bangla Desh an overwhelmingly agrarian and alarmingly over crowded land, socio-economically is entering a new age - the age of urbanisation, main roots of which are the natural growth of population, industrial progress of the country and the influx of Muslim immigrants from adjacent territories of India mostly clustered around the urban areas. The society aspires higher living standard, yearns to throw off economic backwardness, illiteracy and prevailing gross inequalities in status and position in and abroad at individual and national level.

In Bangla Desh society to-day, organisation and value judgement are simultaneously tending to alter the traditional society. Conflict and clash between traditional and emerging attitude and values have occurred and these have touched all most every aspect of the society. General adjustment and accommodation process is going on. In fact, growing urbanisation with its virtues and vices, families with its structure and role, community and its ties, social security and class stratification are all passing through a tremendous transitory period. Under the situation a persistent problem is occurring in the minds of thinkers and planners that how this transformation can be made through a process of balance and harmony.

C. OBJECTIVE AND SCOPE OF THE STUDY

For Bangla Desh, there has been hardly any study made about growing urbanisation from socio-economic and especially physical planning point of view. Although a considerable amount of studies have been made concerning economic development in under-developed countries where Bangladesh has been one of the

elements of discussion, but there is hardly any proper attention made, specially for Bangla Desh in relation to her environmental growth. Apart from this, available books and studies mainly deals with economic aspects of country's development, its difficulties, potentialities and its benefit for the societies concerned, not in the frame work of physical planning.

It is rather a temptation to study urbanisation and analyse its development under broader framework of sociology, economics and physical planning.

The real problem now poses before the development planner is to ensure maximum functional efficiency of the region in allocating resources and to establish a balance between nature and man. Enough experience now exist to make it clear that regional and urban studies and plans are essential for a variety of reasons : to achieve growth targets, to close-up the gaps between growing points and lagging regions to increase efficiency in infra-structure investment, to maximize beneficial effects of urbanisation and to produce more adequate and less expensive environment in places to work and live.⁸

In view of the situation, it has become rather felt-need of the hour to investigate and analyse the social, economic and physical aspects of urbanisations in Bangladesh to find out the better alternatives for the present problems and future progress.

The present study is primarily an attempt to :

- (1) Diagnose the socio-economic pressure for urbanisation ;
- (2) Draw the pattern of urban growth ;
- (3) Sketch the problem of urban-structure, its regional communication and transport system ; And
- (4) Summarize the whole situation.

8. L.Rowdin : Urban Planning in Developing Countries (U.N. Monograph, 1965)P-2

D. METHODS OF STUDY

Studies in urbanisation have been handicapped by the general lack of a method of measuring or classifying the functions or activities of towns. Occupational pattern of the people, an important criterion to determine the functional hierarchy of the towns, has unfortunately not been counted in our Census Report, 1961. So, the study has been based mainly on historical method as sample study providing validity to this dynamic type of problem would involve a greater magnitude of work which is beyond the present resource and time. Modern urbanisation has been a complex problem in Western countries. Though our background and pace of progress is quite different, yet a marked change is there which gives us insight and clue to explain our situation. Within the apparent diversity between the last two decades, comparison and explanation gives us understanding of common strategies of urbanisation.

Books on this subjects deal with the problems of urbanisation in Western Societies as well as on under developed countries of similar nature to ours. As my opportunities were limited to deal with many books, particularly on Bangla Desh. I attempted to supplement the deficiency by pamphlets, news reels, news paper editorials, Government publications and office files which deal with the problems under study.

To make some assertions and arrive at conclusions, I have used statistical data from Census Reports of Govt. of Pakistan, Five Year Plans of Pakistan and some recent counts made by other Govt. departments, as for, The Election Commissions, Bureau of Statistics, Malaria Eradication Office etc. Reliability and validity of the data used in the Thesis may be questioned by many. But to do better was really beyond my present means, and do hope for the empirical studies in future. I have used mostly library materials from the Library of Engineering University, Dacca; Central Public

Library; USIS Library; British Council Library; Science and General Library of Dacca University ; National Institute of Public Administration, Dacca.

E. CONTRIBUTION

This study, I hope, would help us to understand our social and economic needs, aims and objectives of proper planning in the context of prevailing situation. It gives us to perceive dynamic nature of urbanisation which will help, in turn, to project future course of action.

This type of study when broadly based may help the economic planner to make order of preference for development ; the Government to initiate policy matter with the understanding of physical needs of the people, scholars and intellectuals to feel the later trend of the society and public in general to be conscious about desirable objectives and their respective role for achieving such goal.

It is, above all, expected to be regarded as a document of urbanisation in Bangla Desh recorded extensively from the year 1951 to 1971 (before March 25, 1971) which would help the future historians and social scientists to make a comparative study on Post War Bangla Desh.

CHAPTER - TWO

DIAGNOSIS OF SOCIO-ECONOMIC
DEVELOPMENT FOR
URBANISATION

From the dawn of Industrial Revolution, till today, great many changes took place in the process of socio-economic development of different, urbanisation had been playing, still playing in developing economies, the most dominant role to mould the destiny of nation's development pattern. During the 18th and 19th centuries a series of inventions and discoveries in the fields of inanimate energy, technology of mass production, quick and efficient transportation and communication etc. ushered in the modern industrial age, and the tempo of modern urbanisation followed soon. In Asia the tempo came late and still later it came to Bangla Desh.

Historically, the land of Bangla Desh remained purely an agricultural one even in the late 18th century. During the Mughal period Dacca was the only centre attracted some urban population. Most of them belonged to the Mughal Army, the artisan and service population retained by the rulers around them. Chittagong at that time was a small port and trade centre which used to be visited by the Arabs, Portuguese and English traders. Owing the latter part of the 18th century when the British rule was established in Bengal, the centre of attraction of trade, commerce, industry and administration started shifting from Dacca to Calcutta. The once flourishing cottage industry which reached its zenith during the Mughal period gradually declined with the establishment of Cotton textile industries in Great Britain and also in Indo-Bangla subcontinent. Calcutta was the main commercial centre and the region now comprising Bangla Desh turned into an agricultural raw-material supply base for Calcutta. During British period the seat of administration of each of the administrative region developed into a urban centre where professional traders settled and educational institution grew up. Due to unsatisfactory

communication facilities and absence of industrialisation, large scale urbanisation could not take place¹.

After so-called independence in 1947, Dacca being the capital of Bangladesh attained greater importance and few other urban centres of the country were also coming into prominence owing to their growing functional significance.

A. HIGH-RATE OF POPULATION GROWTH :

"Population influences the productive forces of the country in various ways such as through labour requirements, its skill and quality, markets and their capacity etc. The nature and extent of material development and created opportunities, in their turn, exert a profound influence on the population, and in the process of continuing adjustment, interesting demographic shapes and patterns emerge"². Too many people in a limited physical resource means limited scope for development of a country. The pressure of population growth is one of the most important factor that affects to determine the course of human settlement. The agrarian Bangla Desh is obviously a victim of vicious circle in which population density, fragmentation of land insufficient soil and mining resource, lack of capital and thereby low productivity drives the people away from their rural hamlets to find means of livelihood elsewhere : they flock together in and around urban/industrial centres and urban centres emerge.

1. H.A.Zaman : "Population Trend and urbanisation in East Pakistan".
Urbanisation in East Pakistan (1967, NIPA, Karachi) PP 91-92.

2. Nafis Ahmed, DP, Cit, P 283.

Bangla Desh according to 1961 census, abode of 51 million nationals, of which 14 thousand non- Pakistanis is extended over an area of 55126 square miles. Out of the total area of 55126 square miles, 3205 miles is covered by rivers and foreshores. Thus density of population is 922 per sq. mile on average and the highest density is 1786 per sq. mile, of which only 5.19 percent population live in large cities and towns, and the rest 84.91 percent of the people lived in 61,4424 villages where population range varied greatly³. Obviously this is one of the very densely populated area of the world. Of the total population almost 85.26 percent of the total labour force constitute agricultural labourers. Agricultural Census Report of 1960 reports that in Bangladesh a vast population of 3.88 crores farmers live on 191.4 lakh acres with an average holding of only 3.1 acres per family. This too is fragmented in most land under plough is extremely limited. A total of 1.6 million acres of culturable waste land can be tapped with difficulty and cost but at the same time allowance has to be made for growing encroachment upon agricultural land for non-agricultural purposes.

According to the planning Commission, population of Bangla Desh is increasing at the rate about 2.7 % which means a major repercussion of this increased population will be on agriculture. This definitely represents a vicious circle, and it is clear that agricultural sector itself is not in a position to feed, nor to speak of the increased population in future, but of present day. Surplus population is seriously threatening ^{mi} economic development of the country.

3. Manager of Publication : Census of Pakistan (Karachi, 1961)

More population means more people to feed, to educate, to provide housing, health and sanitation and amenities of life. This means more and more land goes out of cultivation for housing or is devoted to food crops for subsistence than to export crops for surplus investment. The economy can not compete even with other agricultural countries with greater equipment and technology per worker, unless it introduces concentrated pattern of living in a planned way of human settlement and providing the scope of intensive utilization of non-material stock, i.e. human resource.

B. INDUSTRIAL DEVELOPMENT IN BANGLA DESH ECONOMY

Industrial development has a necessary and ultimately a large role to play in any sound economic development program. An under-developed country lacking in resources must build industry largely basing on the strength of what it has that is agriculture. And "the improvement in the productivity of agriculture is one of the most solid means of promoting industrialization; in fact unless agriculture does not modernise substantially, industrial expansion in most under-developed countries is likely to be cut short by lack of markets, for the great majority of the people will not have the purchasing power, conversely, agricultural improvements can not go very far unless there is industrial development to take up the released man-power and to provide a solid technical base for the equipment and services essential to modernise agriculture"⁴.

4. Eugene Stateloy : The Future of under-developed countries(London) P-304.

Without being much biased for or against industrialization, we can safely say, that both industry and agriculture should remain side by side in under developed economy as a complementary to each other and priority should be given on the basis of increasing marginal rate of contribution to the national economy. The Industrial organisation during Mughal period clearly reflects the basic features of the agrarian order, the most important product of which was the textiles deriving raw raw materials from the local cotton. Village industries were meant for catering the needs of self sufficient village communities where majority of the artisans were disguised unemployed labour. The artisans were maintained by the village communities by rent free homestead and agricultural lands. Under this secured condition there was hardly any incentive for improving the skill or technology as there was no threat of competition and the profession was hereditary. On the other hand urban industry was entirely dependent upon the patronage of the aristocracy and created to their luxury demands.⁵ The Indian urban artisan attained high skill of proficiency which won fame for them and for their products outside India. Indeed Indian craftsmanship was ranked highest in the world of the period ; handworks in silk, cotton, ivory, gold and silver had attained such technical excellence unknown in the West.

India in the 18th century was manufacturing as well as agricultural country. Along with manufacturing industries, commerce expanded so much that Indian luxury products gained market in the world at large and thus 'urban trading centres had arisen as a result of exchange and export rather than for local use'.⁶

5. D.R. Godgil : The Industrial Evolution of India in Recent Times(Gokhale Institute of Politics and Economics, Poona, 1945) p 134.

6. A.K.Nazrul Karim : Changing Society in India and Pakistan(Dacca, 1961)p-41.

It was the Industrial Revolution that brought about a tremendous change in British Colonial policy to find out expanded market for ever increasing bulk of industrial products. East India Company and the British Parliament following the selfish commercial policy discouraged Indian manufactures in the early years. By dint of political supremacy they hold the right of monopoly of exploiting the country and made India sub-servient to the Industries of Great Britain. Indian artisans were forced to work in the company's factory. Prohibitive tariff included Indian silk and cotton goods were admitted in India free of duty or on payment of nominal duty. This is rather a painful episode which can explain the economic condition of the Indian people of 19th century and their helpless dependence on agriculture. Thus immense western elements were imported to disrupt the old society but not to bring rapid economic advance.⁷

In the early twentieth century, Calcutta and other metropolitan cities of India made a remarkable progress in manufacturing industries. The European capital invested in the various branches of industry including jute on the bank of Hoogly river. Thus Calcutta, the hub of European enterprise, indirectly prevented development elsewhere, particularly in East Bengal Area.⁸

So, during the last 200 years of British occupation this region fed the more industrially developed areas of Indian subcontinent with men and materials remaining itself poor, famished and underdeveloped.

7. John Beauchamp : British Imperialism in India (London, 1935) P-16

8. Hafis Ahmed : Op. Cit, P 217.

Since partition successive national Govts. contributed towards the economic growth though the amount of success was not much significant. The pace of development was accelerated to a significant extent since Ayub regime took over the power in 1958, largely due to the determined pursuit of a number of development oriented policies. Beginning with the first five year Plan a sustained effort for all round development of the country's economy has been made. With the successful implementation of the Second Five Year Plan, tripling the industrial investment, urbanisation gained a new momentum and the tempo continued for the successive plan period. Ofcourse, 'the performance of the industrial sector in the Third Plan. Though substantial, has not been entirely upto the expectation. The plan has had a chequered career. It got off to a difficult start in 1965-66 and the pace of investment and production was again upset by the disturbances of 1968-69'.⁹

Bangla Desh Industrial Development Corporation (former EPIIC) traces its history from 1962 being bifurcated of development in the country. This proved to be a major step towards the industrial growth here. The capital investment by the corporation ushered a new era of industrial growth, both in the field of consumer and capital goods.

From the above study it reveals that the wave of the Industrial Revolution effected very late to this part of the subcontinent and as a result the demographic pattern of human settlement in urban areas developed insignificantly in comparison to the countries enjoyed major industrial development. Kingsley Davis notes

the vast majority of the inhabitants are city dwellers, nearly 80 percent of the people in the United Kingdom live in cities, as do nearly 70 percent of the people of the United States. Contrast this with the preindustrial civilized world, in which only a small, socially dominant minority lived in cities¹⁰.

The magnitude of urbanisation has not been made here any substantial progress.

The traditional method of agriculture and immature state of industrial development are present in our economy due to socio-economic causes. The world has changed so tremendously that to keep pace of change it has become imperative on our part to reshape our underdeveloped agricultural society into a well balance develop/^{ed}agro-industrial society.

C. EFFECT OF PARTISION

So-called Pakistan was born out of the historic struggle that Muslims of this subcontinent fought for finding a suitable home for their national culture. The Muslim majority areas of the subcontinent which is now composed of two separate zones was termed as Pakistan on the 14th August, 1947, as this event was termed as partition by common terminology. Since the country was originally one unit its bifurcation led to dislocation and disturbances in all aspects of economic life, especially in industrial activities. The economics of India and Pakistan were complementary, since during the British period some industries which were developed by the colonial administrators were located at the area which now comprises Indian territory.

9. Government of Pakistan : The Fourth Five Year Plan
(Islamabad, 1970) P 355.

10. Gideon Sjoberg : "Origin and Evolution of cities" (CITIES, Scientific America New York, Vol. 213, No.3, 1965) p.37.

The area now marked as Bangla Desh (former East Pakistan) was the supplier of raw-materials and labour. In reality, the entrepreneurial ability, technical personnel, skilled and unskilled labour employed in different industries of undivided India used to come from different parts of the country and there was no one part which was self-sufficient in this respect.

After partition almost all the urban areas of Bangla Desh were affected due to emigration of Hindu merchants, traders and entrepreneurs of some textile mills etc. The vacuum this created in the population of Bangla Desh was filled up to a great extent by the Muslim immigrants from India. This huge influx of refugees were mostly settled in and around the different towns of Bangla Desh, among which Dacca, Chittagong and Rajshahi absorbed the largest number. As a result, 1951 Census of Pakistan showed sharp upward trend of population in some towns and cities of Bangla Desh.

D. DEVELOPMENT OF TRANSPORT AND COMMUNICATION

The origin of growing urban centres, as we see, has the product of agricultural surplus, and its accumulation in favoured location - towns or cities. This adequate food surplus was the basis of existence of towns, and the ratio of food producers to non-producers remains stable for a long time. People living in different early cities had no communication and very limited transport facilities. Residential mobility was hardly imagined and one knew nothing about the man of next cities. The area of urban space was limited with anonymous crowded living at the centre.

Our urban life is a reversal of that ancient static order and brought changes in work and mobility. It is no longer an abode of leisure class, but of a work-place for non-agricultural pursuits. Modern method of transport and communication ~~work~~ make it possible to reside further and participating the urban centre activities. Thus a zone of upward transition is created at different region and sub-regions breaking the barrier of rural-urban lives. This has been responsible for the creation of extensive suburban tracts of housing and more recently has begun to inject a considerable elements of townfolk into rural setting, and new contacts widening the zones of acquisition and exchange call for more frequent and rapid communication.

During the British rule in India, the growing commercial needs required better transport and communication facilities and Calcutta being a premier port and hub of administration, influenced its development focussing towards this magnet. Road connexions between Calcutta and East Bengal centres such as Dacca, Jessore, Khulna, Faridpur etc. were built up and existing water transport facilities were improved to enable the hinterland to direct its goods to Calcutta.

The object of building railways in Bengal was the same ---- to supply Calcutta with raw-materials for export and carry manufactured goods from their to consumers in East Bengal. Thus chief function of rail, water and road transport was to serve with men and material to the Calcutta- Hoogly region. The means of communication between Calcutta and the area, East Bengal was good¹¹.

11. Nafis Ahmed : Op.cit. P-250.

Partition of the subcontinent caused a great disruption to our transport system. Bangladesh was left with only a small part as Chittagong with limited facilities. Moreover, owing to the strain of the Second World war years, all forms of transport in Bangla Dosh were badly depleted as the area was in front of supply channels for the war operations against the Japanese on the Burma- Assam- Bengal front¹². Immediately after partition the Government started reconstruction of transport facilities connecting the important centres with urban core and providing improved facilities for water and airports. So, the improved means of transport and communication, one of the important factor, responsible for urbanisation, does not trace its rich history in this area back to partition. Still many rural areas are left hopelessly to contact with neighbouring communities or trade centres.

E. SPREAD OF EDUCATION, TRAINING FACILITIES AND SPONTANEOUS TREND TOWARD

URBANISATION

Economic development in the modern world demands educational facilities at every level. This is because modern industry does not only demand skilled labour but also efficient managerial, administrative and engineering personnel. Since development of social infrastructure is a sine-qua-non of economic as well as industrial development, the standard performance of teachers, doctors, nurses, social workers are essential. So there is need for training in these auxiliary spheres.

¹² Ibid, 250.

Realising the great need for development of human resources, Government in its successive plans spent a considerable amount of money on education and training schemes. Newly established general and technical universities along with engineering and medical colleges at different cities/towns, drawing a good number of students and staff from different parts of the country, working as a great fillip towards urbanisation.

Education department in Bangla Desh has taken the responsibility for running vocational schools. The Directorate of Industries and Rural Industrial service of Bangla Desh small Industries Corporation are organising technician and crafts men level training centres in the country. The latter has been found keen in carrying the training facilities in the remotest rural areas and have extended facilities to women in some suitable trades. In addition Bangla Desh Industrial Technical Assistance Centre has been opened at Dacca to offer short course training to technical men in job.

Besides the promising economic opportunity of cities, not exists in rural environment, the charm and glamour of urban life continues to draw people to cities, 'once they arrive in the city and become involved in the struggle for employment, they encounter endless difficulties, but possibility of finding employment is always present.

F. EFFECT OF URBANISATION ON ECONOMIC DEVELOPMENT

Positive Effect : Urban centres grow up largely because people want to be close to a variety of facilities - business and professional contacts, educational institutions, recreation and cultural facilities requiring participation

participation of large numbers of people, specialised shops and other people with similar tastes¹³. Some writers uphold the idea that the correlation of industrialization and urbanisation is not perfect in any event. Large cities have developed in the past in many countries as 'cultural' and Government centres or as overgrown villages. But the future economic growth will be centred in urban areas, simply because they provide both pools of labour and various public facilities. Continued urbanisation, including the growth of new population centres, is rational to be expected.

The urban centres provide both the ingredients of industrialisation: Supply of skilled labour force and public facilities conducive to the favourable environment for investment. This is the simple reason why urbanisation and industrialisation go together. The tendency toward agglomeration of services in cities, the economics of Scale involved in urban growth and external economics created for other activities by each new enterprise or service established in one town are well known.

One important point is perhaps needed to stress that highly trained people i.e. managerial class, engineers and technicians, administrative personnel of middle and high position in either the public or private sector have a great psychological inclination to live in or near cities. Even if the sake of a strong resource potentiality, an industrial unit grows at a non-

13. Benjamin Higgins : Economic Development (1968 London) P-

urban area, public facilities are put there to give impetus for smooth functioning of the industrial business and the area is drawn closer to important civic centres. Growing industrial-urban centres in and around the environs of Dacca may be set as good examples in this life. (Ref. Map.2)

Negative effect : Besides the well-known social problems of industrialization or urbanisation. Like delinquency, drug addiction, alcoholism, sex, gambling, beggary, crime, disease ; and frustration in family bond and cultural pattern, some important fundamental problems, like unemployment and underemployment, ill housing and slum dwelling and socio-political unrest seem to be worth discussing.

Since the World War II, for substantial reason well known to most of us, cityward migration has increased to the point of pain in many regions. The problem aspect of this sudden flight from the land is most acute in the developing countries, where the acuteness of the situation may be measured by the numbers alone, that is the employment needs of a country are to be measured by unemployment in a city excessively burdened by in-migrants.

In spite of all the deficiencies in the employment statistics it is evident that the trend of growing unemployment in Bangla Desh is not likely to reverse itself in the near future. Economic frustration, unemployment and under-employment in urban areas are more fatal than in village. It makes political enterprise more desired as a means to status and power¹⁴.

14. Santi Tangri : "Urbanisation, Political Stability and Economic Growth",

India's Urban Future (Ed. by Roy Turner, Univ. of California Press, Berkeley, 1961) PP 192-212

From the Census Report of 1960 (Pakistan Housing Census) and from the experience of other developing countries in recent decades, it is observed that housing conditions get worse in urban areas. As congestion and slums grow, the need of to spend is more on urban areas to provide health and amenities.

Cities give birth to political or other leaders ; or draw them there. A major consequence of western oppression has been the growth of nationalist and then socialist ideologies in the Afro-Asian countries. The constant socio-economic- political discontent, greatly manifested in urban centres, cause troubles in decision making process and smooth implementation of the public policies, retarding economic growth of the country. Its consequence is far reaching, may frustrate the whole socio-economic structure of the country. So, the desirability of the size and pattern of urbanisation is an important element of the national planning matrix. The development cannot be skewed down on those ground. Hindering the growth cities will entail a great wastage of human resource. Stability and sustained growth must be attained through the process of planned investment and distributing maximum services for the majority of the society.

CHAPTER - THREE

PATTERN OF URBAN GROWTH

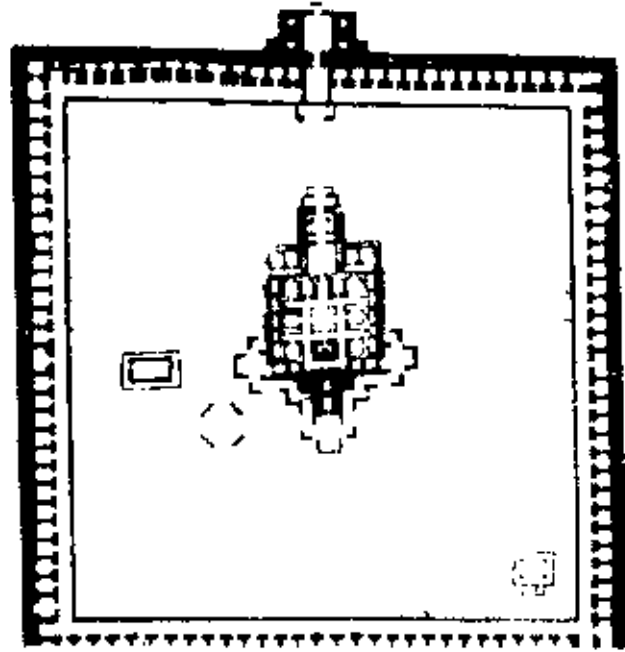
A. OUR URBAN HERITAGE

The urban phenomenon is, without doubt, one of the most striking features of contemporary civilization¹. The history of Bengal is recorded with a rich tradition of her town building since the 3rd century B.C. There are evidence to show that there existed a chain of planned cities with complex structure².

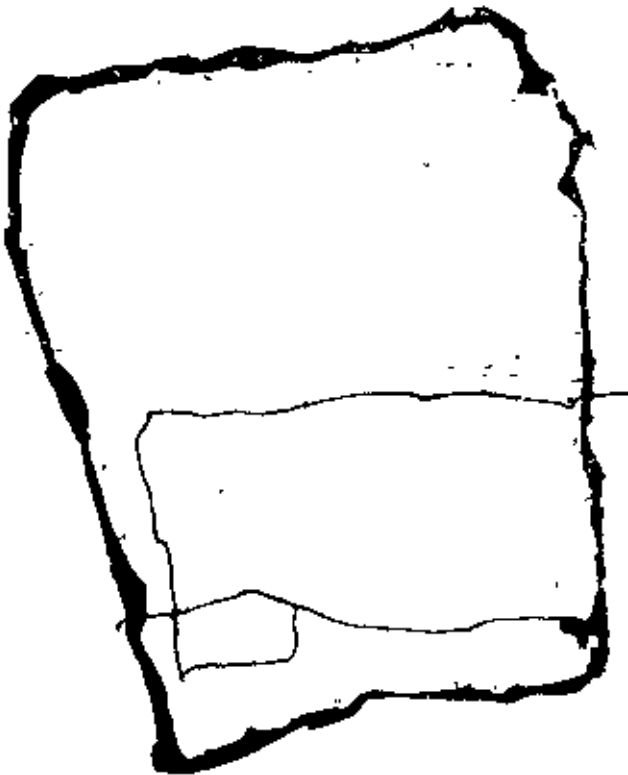
*There were towns of considerable size in ancient and early medieval times which served as centres of administration or seats of pilgrimage or commercial activity because of suitable location and facilities of transport and communications. For example, the famous towns of Mahasthangarh, the ruins of which lie on the bank of Karatoya river about seven miles north of Bogra has also been identified as the old city of Paundravardhana. It appears to have flourished from the early Christian era till the Muslim conquest. Panchanagri in Dinajpur (A.D. 448), Paharpur or Sompura in Rajshahi (Fifth century), Navyavakasika (perhaps in Dacca), Samatata (South-eastern part of East Bengal) rose into prominence. Other contemporary cities or those of slightly later development were Vikrampur of the Sena Kings in Dacca district, Nyaan Maynamati near Comilla and possibly Chatigrama (Chittagong) were centres of Buddhist culture

1. Madame J. Beaujeu - Garinier: Urban Geography (London: Spottiswoods, Ballantyne Co. Ltd. 1953) P.2
2. R.C.Majumder: History of Bengal, Vol. 1 (Dacca, 1943), P.643

BUDDHIST MONASTERY
10TH CENTURY AD



HINDO CIVILIZATION
5TH TO 12TH CENTURY AD



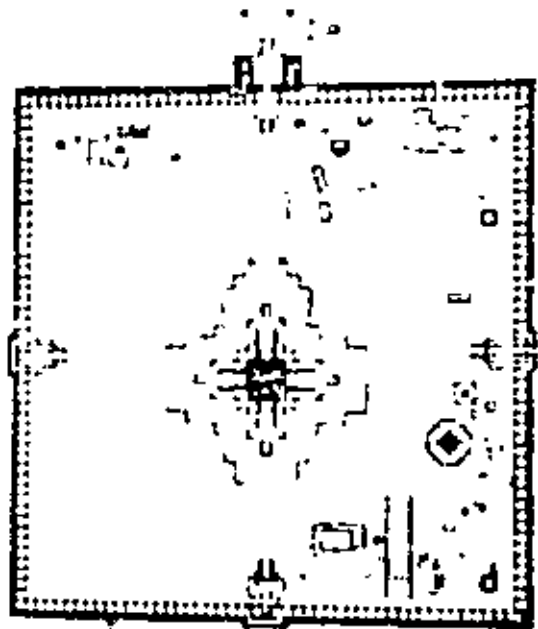
tended to serve a variety of functions being military, political, administrative, commercial or religious centres as well as catering for industrial needs.³ The archaeological finds at Mainamati, six miles west of Comilla, reveal that Mainamati was the capital of Chandra Kings who were Buddhists and ruled from 900 to 1050 A.D. It was then called Rohitagiri⁴.

Pundranagar (Mahasthangarh) was a flourishing city by the 3rd century B.C. and remained the earliest organised city so far in Bengal. According to the report of Hien-Tsang, it was a prosperous city around 630 A.D. His report also states that there was a gigantic temple at Basubihar, three miles West of citadel, built by Asoka on a relic of Lord Buddha. Paharpur monastery is a significant example of Buddhist architecture. Buildings were planned to accommodate large groups of people and were usually laid on a rectangular grid dominated by an acropolis containing a monastery and a stupa. Excavations at Mainamati also show the same formal development as at Paharpur. Hindu architects responded to their physical environment intelligently and adopted the form which was authentically Bengali. The Muslims start with fortified buildings and walled cities with the special elements of architecture: arch, dome and

3. Nafis Ahmed : Op.cit. P. 74

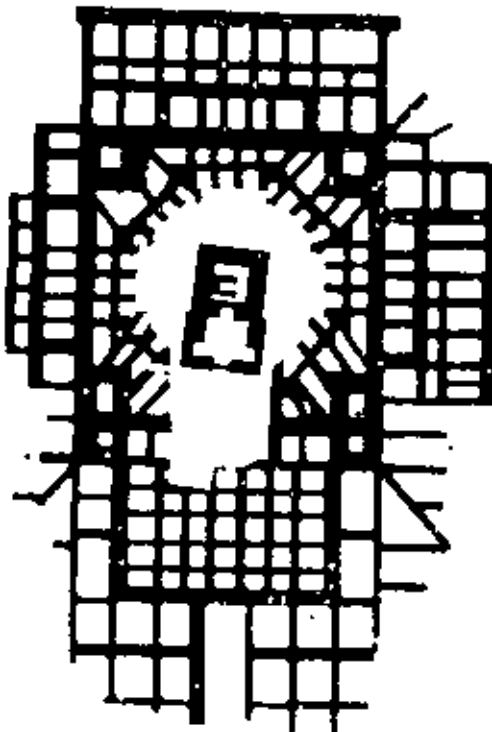
4. F.A.Khan : New Archaeological Discoveries in East Pakistan
(Dacca, Pub.Deptt. Govt. of E.P. 1955), P. 4-5.

PLAN OF DAHAROU MONASTERY.



EXCAVATIONS AT GOKUL
DISTRICT BOGRA

HINDO TEMPIA REMAINS 5TH TO 12TH
CENTURY AD



BUDDHIST MONASTERY,
8TH CENTURY AD.

BY COURTESY:
ARCHAEOLOGY DEPTT.
GOVT. OF BANGLADISH

minerate. During the early British rule, development in the field of architecture and planning in Bengal was hardly noted worthy. However about the beginning of the twentieth century we find some response to local environment in colonial architecture⁵. (Fig -1 and Fig.2)

Though the importance of town building was recognised by the British rule late, the process of urbanisation was getting momentum much earlier. "Clive opines the city of Murshidabad* was in his days more populous than London and Bengal at his time contained big and populous cities"⁶ After the solid foundation of the British rule laid over the subcontinent, 'the only cities to which growth can be definitely ascribed were the ports of Calcutta, Bombay and Madras and a few places in the interior, like Canpore, but, on the other hand, there was certainly a great decrease to be accounted for in the population of a large number of old capital town, e.g. Dacca. Murshidabad, Lucknow etc.,⁷ Industrial development in this region during the last two hundred years was almost nil. With the abolition of courts the demand for luxury goods became feds and art industry like Daccai Muslin, faced a great problem to survive in competition with the cheap mechanical products of the west and ultimately due to the repeated attack on them, they succumbed to ruination. But a good number of district and sub-divisional head quarter towns, with a much

5. A.H.Ahmed : Architecture in East Pakistan upto 1947 (Dacca, Third Seminar On Architecture. Pakistan Council, 1968). P.87.

6. D.R.Sedgil : Op.Cit. P-

* Now in West Bengal, India.

7. Ibid.

smaller settlements as compared to their present configuration, were surviving to cater the socio-administrative needs of the region in a limid spirit.

Urban Planning in modern line has very much lagged behind the rate of population increase and technological advancement. The history of physical planning in the present era, for Bangla Desh, is very brief. Town planning in its rudimentary form started only after partition and continued in same form during the first decade. From 1958 due to the growing demand of land for various development purposes planning started gaining some importance⁸.

8. URBANISATION : WHAT IT MEANS

(Urbanisation is a process through which an increasing proportion of people live together in a concentrated locality having continuous collection of houses and enjoy in common the benefits of certain public utilities. Quantitatively speaking, urbanisation is a numerical concentration of people having more or less permanent settlement. Qualitatively, it is a progressive shift towards newer values of life. As in numerical size there is no hard and fast line of demarcation between urban and rural, similarly, the qualitative difference between the urban and rural way of life in marginal cases tends to diminish. Still there is a minimum size below which enjoyment of public utilities is not justified by economy and efficiency. This may be regarded the minimum size of population to be termed as urban.

8. Urban Development Directorate: Physical Planning Progress (Dacca, Govt. of East Pakistan, 1968) P-9

The standards applied for distinguishing an urban area differ from country to country and would seem to be largely based on the prevailing conditions in the country. The basis used in Pakistan for the division between rural and urban population is the population size or of administrative unit (Municipality/Town Committee) or both. According to census definition of 1961, urban areas included all municipalities, civil lines and cantonments not included within municipal limits and any other continuous collection of houses inhabited by not less than 5,000 persons⁹.

In deciding the urban character of a place certain characteristics, e.g. common utilities, roads, sanitation, Schools and minimum a college, and specially non-agricultural occupation of the people are also looked into. Thus as a special case, a few areas which had these urban characteristics but had less than 5,000 population, were declared urban areas. In the present study, some near-urban centres, from population point of view have been given the status of 'town' as they are found otherwise satisfactory with a remarkable potentiality for future development. The basic characteristics assumed here to denote a settlement as urban area : sizable population with a non-agrarian means of livelihood and socio-cultural pattern is fundamentally different to those of rural¹⁰.

9. Manager, Government of Publication : Census of Pakistan 1961, (Karachi) Vo.2

10. Census of Pakistan, 1961.

C. URBANISATION IN THE PRESENT CENTURY

Urban population is spread very unevenly over the world surface, but the regions of extreme urbanisation are few and restricted. It is a varying mixture of economic and social forces which decides the pattern of urbanisation in the world to-day. A century and a half ago only about 2.4% of the world's population lived in town, in 1850, it raised 4.3% in 1900 it was 9.2% and 1950, 20.9%. It is estimated that in A.D. 2,000 it will be 45%. At present more than 35% of the world people living in urban environment and in 2050, it is expected to be 90%. Urbanisation decreasing a little in the older industrial countries but hardly enough to disturb the general upward trend¹¹.
(Ref. 3.1.Tab.)

Urbanisation in real sense in Bangla Desh started with the dawn of this century. Municipalities which nurtured training in self-Government formed the nucleus of politico-economic-administrative units. Facilities for education, scope for business and commercial activities and extension of public utilities came with the administrative set up to cater the increasing needs which in turn, attracted the people to those centres. Gradually the system of transport and communication developed as flourishing trade and commerce needed and justified it. In this way a built in force was created and the growth of towns sustained somehow by themselves.

11. Enry Jones : Towns and Cities (London, Oxford University Press, 1966) P-13

TABLE 3. 1

PRESENT WWR URBAN WORLD (In order of Rank)*

Name of the country	Percentage(%) of Urban Pop ⁿ . (around 1961)
England & Wales	80.0
Israel	77.9
Denmark	74.0
Sweden	72.0
U.S.A.	69.9
Canada	69.6
Venezuela	67.2
Baharin	65.5
Japan	63.5
Union of South Africa	48.3
Hungary	39.7
Iraq	39.2
U.A.R., Jordan	37.7
Spain	37.0
Colombia	36.3
Brazil	36.2
Tunisia	35.0
Bulgaria	33.6
Algeria	32.6
Rumania	31.3
Morocco	29.3
Pakistan (without Bangla Desh)	22.5
India	18.0
Indonesia	14.8
Bangla Desh	5.2
Nepal	2.8
Uganda	2.4

*Source : Kingsley Davis : "The Urbanisation of Human Population", CITIES, Scientific America, N.Y. 1965.

TABLE 3. 2.

PERCENTAGE OF URBAN POPULATION TO TOTAL POPULATION (BANGLA DESH)

1901	2.43	1921	2.3	1941	3.26	1961	5.2
1911	2.54	1931	2.62	1951	4.34	1971	7.8

TABLE 3.3.

INCREASE OF URBAN POPULATION OVER THE DECADE (percentage)

1901-11	14.96	1921-31	22.55	1941-51	18.41	1961	5.2
1911-21	8.80	1931-41	42.64	1951-61	45.11	1971	7.8

TABLE 3. 4

DECENIAL VARIATION IN NUMBER OF URBAN CENTRES WITH POPULATION LOAD OF DIFFERENT SIZE CLASSES

Year	5,000	5,000- 10,000	10,000- 20,000	20,000- 50,000	50,000- 1,00,000	1,00,000 and over	Total
1951	7	17	15	20	3	2	64
1961	9	21	16	23	5	4	78
1971	8	22	25	28	9	5	97

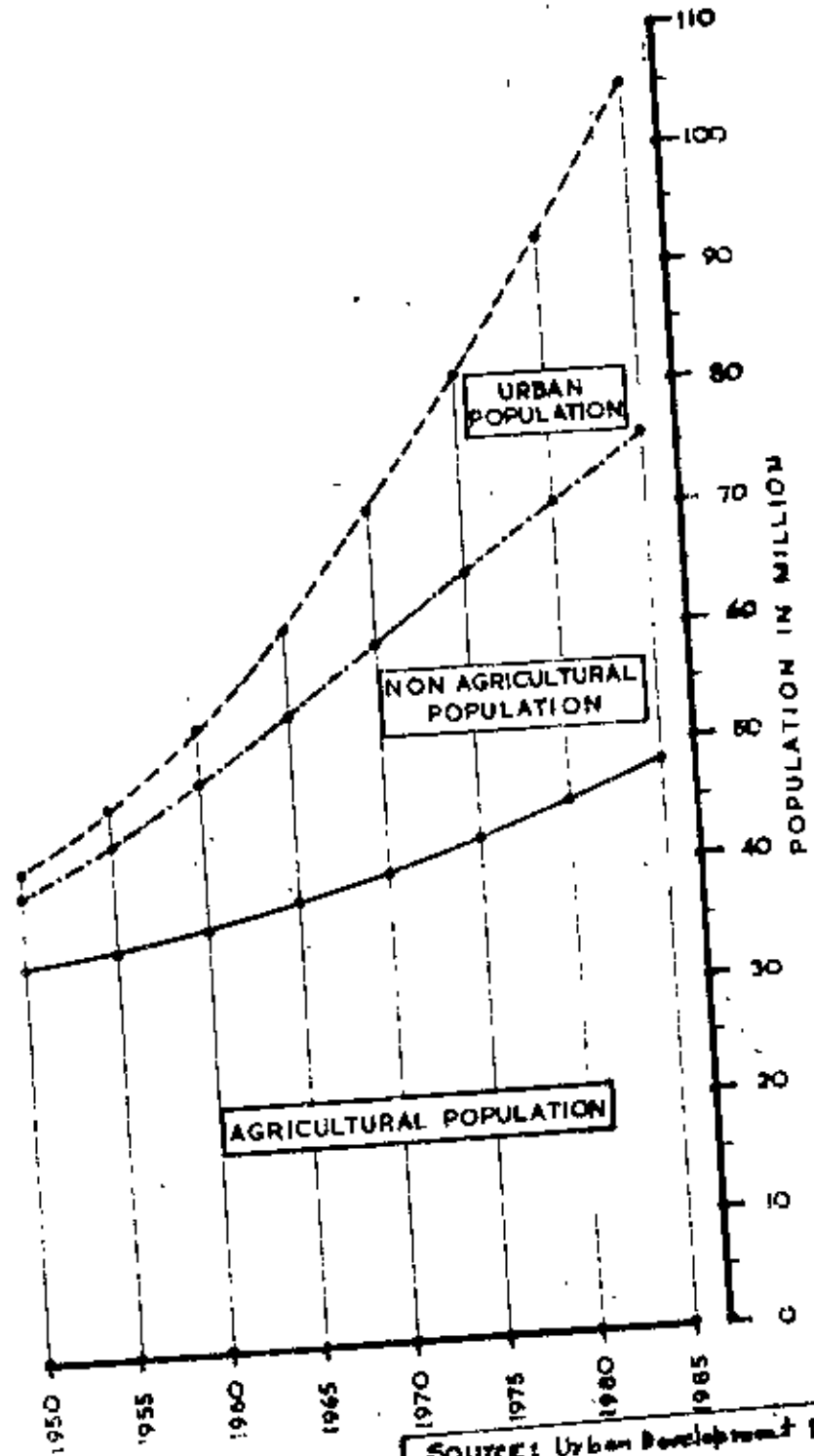
TABLE 3.5.

INCREASE OF RURAL AND URBAN POPULATION IN BANGLA DESH (1901-61)

Decade	Numerical Increase (000)			Percentage Increase		
	Total	Rural	Urban	Total	Rural	Urban
190-11	2627	2522	105	9.08	8.88	14.96
1911-21	1699	1628	71	5.38	5.29	8.80
1921-31	2250	2152	198	7.07	6.65	22.55
1931-41	6393	5952	461	17.96	17.81	42.84
1941-51	65	-384	283	0.15	0.86	18.41
1951-61	8908	8087	821	21.24	20.16	45.11

Source . Table 3.2, 3.3, 3.4, & 3.5 Compiled from the following sources:

1. Census of Pakistan, 1961 Vol.2.
2. Provincial Election Commission's office Rajshahi, Dacca. (Off. files)
3. Project of Power Survey : Industrial Adv. Centre of Pakistan
Motijheel, Dacca. File No. PL205 (Data Bank)
4. Urban Development Directorate, Dacca, Bangla Desh.



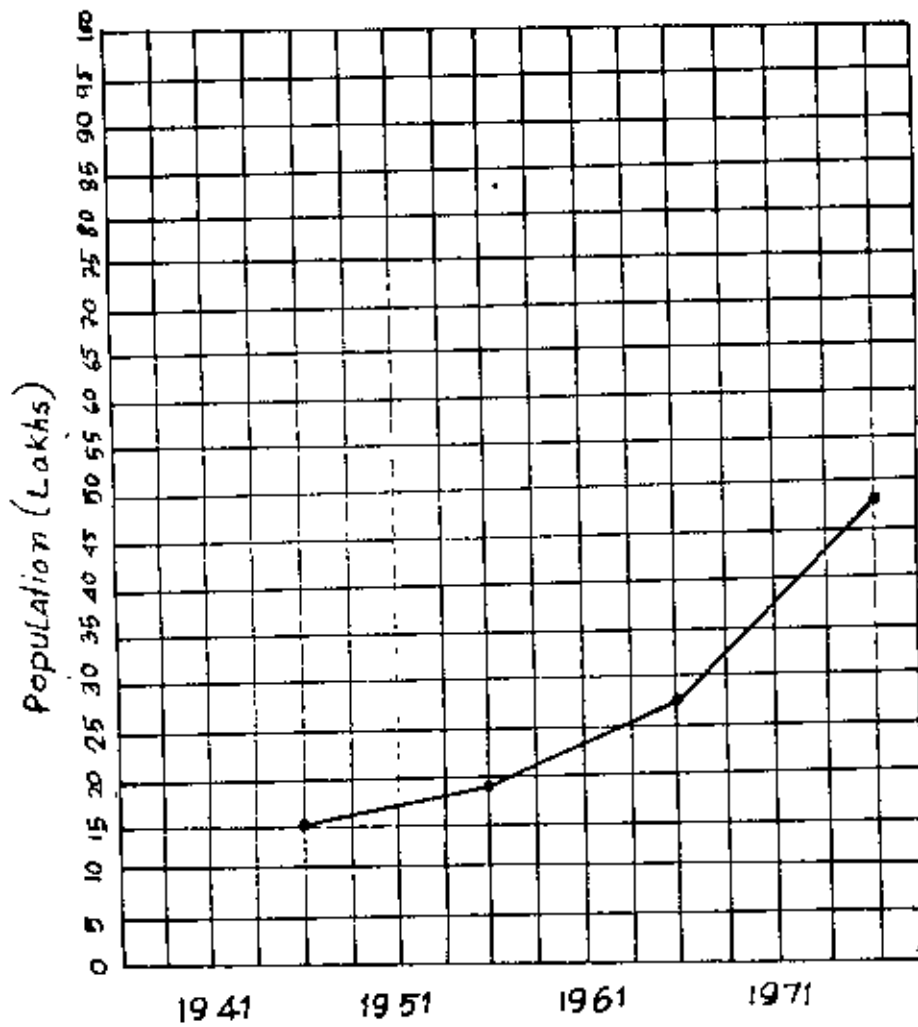
SOURCE: Urban Development Directorate, D.A.E.C.

Tables 3.2, 3.3 and 3.4 provide a historical sketch of the development of urbanisation of Bangla Desh. The increase in the proportion of the urban population is more or less steady since 1901 except in 1911 when the cities were depopulated due plague epidemic and in the decade 1941-51. This period saw the second world war and the colossal famine of Bengal. These two incidents are turning point in the history of urbanisation in Bangla Desh. In early 40_s people left cities for the fear of bombing and other war ravages, but soon the famine brought thousands and millions of hungry villagers to the cities. Rural economy being completely shattered, people left villages with a hope of job opportunities and better prospect for life in urban areas. There also they met the most unfortunate fate and surrendered themselves to death. In the decade 1941-51, though the absolute population marked a negative growth by 65,000, urban growth trend recorded positive. (Reference Tab. 3.5.)

Then came partition (1947), which held back to some extent the tempo of urbanisation for the time being due mass exodus and haphazard clustering of uncertainties. Actually it gave an unbalanced temp of urbanisation. But in the following decades, the extension of development activities and some amount of industrialisation has turned the tide of urbanisation to an upward direction.

Before partition the region now forms Bangla Desh fell short of other part of India in respect of urbanisation. Even after partition, this trend was continuing as it was lagging behind the other wing of former Pakistan. During the decade 1951-61, the rate of urbanisation was much faster in West Pakistan* than what was going in Bangla Desh. Still, she has a vast segment of rural population

BANGLADESH
Urban population (1941-1971)

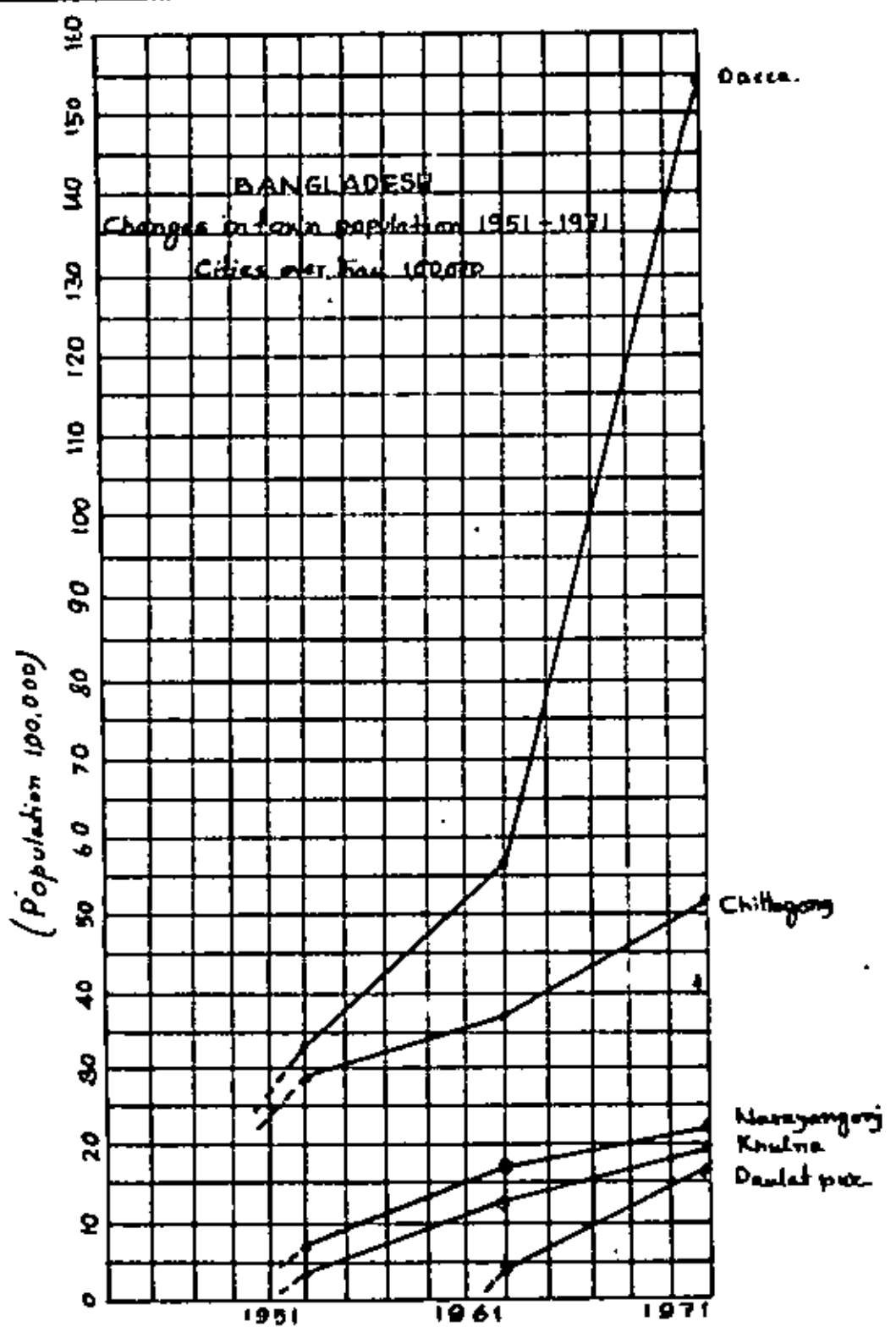


Source : Urban Development Directorate
Dacca

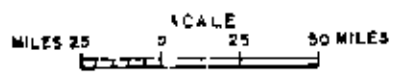
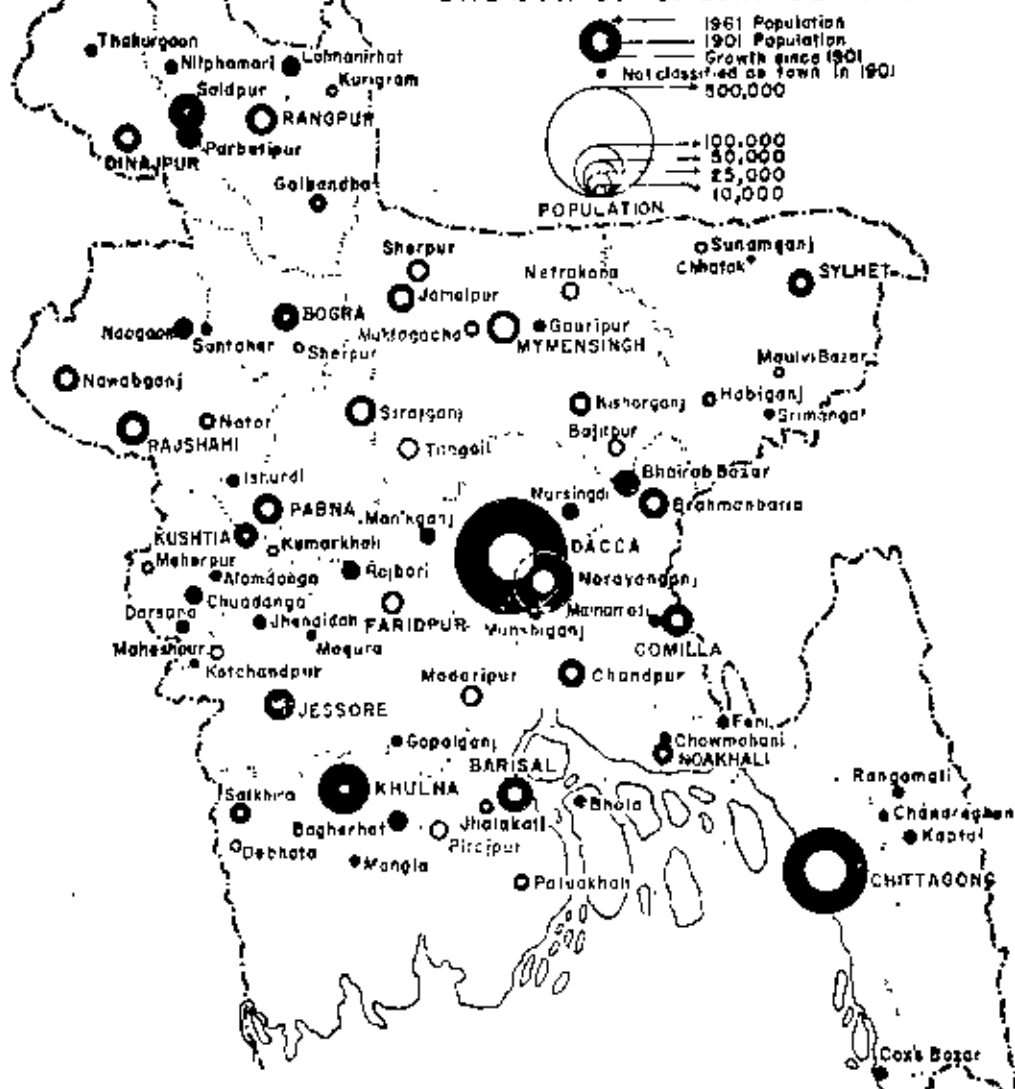
TABLE 3.6.

URBAN AREAS AND POPULATION (BANGLA DESH)

Locality	Year 1951	Year 1961	Year 1971	Locality	Year 1951	Year 1961	Year 1971
Dacca	338762	556712	1524672	Dacca	---	---	---
Chittagong	294046	364205	512974	Narsingdi	15254	15754	28819
W. Gonj	72317	162054	218670	Natore	10455	13317	15762
Khulna	42225	127970	178030	Habiganj	10882	12097	14840
BarisalMu.	89694	69936	95220	Bajitpur	13111	12097	14928
Rajshahi	39993	56885	76582	Manikgonj	---	11676	15723
Coxilla	47526	54504	86650	Chudhanga	8617	11625	26990
Myerasingh	43315	53256	73406	Iowardi	---	11566	24610
Jessore	24176	44366	58148	Jhalakati	10009	10709	14512
Pabna	32240	40792	46325	Sunamganj	8488	9842	11986
Rangpur	31759	40634	45270	Feni	4951	8917	20510
Sylhet	33124	37740	54626	Nilfemari	9757	16596	16596
Dinejpur	35687	37711	46884	Jhansidah	4570	9055	12842
Faridpur	35526	28333	31796	Gopalganj	---	8856	12532
Kushtia	21628	24952	26586	Kotchendpur	6004	8703	13714
Bogra	25303	33784	46166	Kurigram	8063	8703	13714
Tangail	21639	23688	32162	Muktageche	6982	8658	11082
Noakhali	16677	19874	28712	Munshigonj	7071	8604	11013
Rangmati	---	6416	8212	Cox Bazar	5925	8427	12527
Sayedpur	61369	60288	83382	Bhola	6198	8406	10760
Sirajgonj	37858	47152	55150	Sentahar	7442	8292	10614
Brahmanbaria	38042	47784	50625	Meharpur	7174	8147	11626
Patuakhali	10289	12325	16476	Darmona	---	7665	12812
Jawalpur	27078	37988	43866	Thakurgaon	10049	7039	12252
Chandpur	32048	34837	38860	Gouripur	6048	7028	8996
Bhairab	12040	31479	42500	Magura	---	6999	14788
Nowabgonj	32446	29725	35102	Moulvi Bazar	5967	6522	8074
Madaripur	21693	25328	29272	Alamdhanga	---	5494	8074
Sherpur(Myn)	29312	24924	29824	Kumarkhali	3896	5353	6851
Kioteogonj	29067	24031	30414	Sherpur(Bog.)	4276	4812	6519
Daulatpur	---	47053	1,72850	Choumohini	---	4544	18615
(Incl. Khaliapur)				Moheepur	2983	4153	5316
Perbatipur(T.C.)	32876	27188	40862	Debhata	5738	4042	4821
Lamonihrat	9170	22001	26928	Srimongal	3010	4042	5171
Naogaon	11287	202726	27128	Capital(Des.)	---	11967	23298
Satkhira	14758	20169	29928	Moinamoti(cent)	---	4908	6282
Galbandha	14310	17738	20220	Chandraghona	---	4221	8698
Bagerhat	7431	16398	25358	Mongla port	---	3874	10477
Netrakona	12924	17008	20660				
Rajbari	11398	16004	25630				



BANGLADESH GROWTH OF URBAN CENTRES



NEWLY GROWN URBAN CENTRES

Table 3.7.

Locality	1971
1. Chatal (Cement Factory Area)	4520
2. Ghorashal	5332
3. Jaydebpur	6728
4. Toongy	11515
5. Ashugonj	7850
6. Pachagor	4209
7. Jamalgonj	3420
8. Palasbari (Bogra)	6192
9. Pakahty	5270
10. Bharamera	6180
11. Gaurnadi (Barisal)	3280
12. Sarupketi *	4195
13. Dawangonj	5115
14. Rang Mirzapur (Tangail)	9730
15. Sarde	9192
16. Akaura (Comilla)	6230
17. Barguna (Patuakhali)	4280
18. Daudkendi	8810
19. Lakeham	7520

Table 3.8.

PERCENTAGE OF URBAN POPULATION IN DIFFERENT SIZE-CLASS

Year	5000	5 to 10 ths.	10 to 20 ths.	20 to 50 ths.	50 to 1 lac.	1 lac & over
1901	4.39	14.39	41.30	9.85	10.38	30.39
1911	4.31	11.40	29.90	23.39	---	31.10
1921	4.43	10.27	29.02	26.42	---	30.04
1931	3.98	10.88	23.13	30.84	---	31.17
1941	0.54	6.61	13.51	36.03	11.08	30.23
1951	1.48	7.42	10.02	35.96	12.49	31.38
1961	1.52	6.77	9.07	28.41	11.91	42.32
1971	1.05	3.50	8.35	23.30	15.15	48.20

Source . Table 3.6, 3.7, 3.8, compiled from the following sources :

1. Census of Pakistan, 1961 Vol. 2
2. Provincial Election Commission's Office Rajshah, Dacca (Off. files)
3. Project of Power Survey : Industrial Adv. Centre of Pakistan
Motijheel, Dacca. File No. PL205 (Data Book)
4. Urban Development Directorate, Dacca, Bangla Desh.

and its urban population though small in percentage has been showing an upward trend in recent years with the impact of industrial development. In 1941 the rural population of Bangla Desh stood at 96.34 percent in 1951, it was 95.66 percent in 1961, 94.81 p.c. and in 1971 it is 92.2 percent. So, during the last sixty year (1901-61) urban population in Bangla Desh grown up slowly and gradually. The last census 1961 shows that the urban population in 1961 increased about 3.5 times, since 1901, whereas the increase of total population in the country during the same period was less than two folds. This means the rate of urbanisation was faster than the rate of total population growth and the ratio of urban population to the total population has been a continuous rising curve.¹¹ (Ref. Map no.3.)

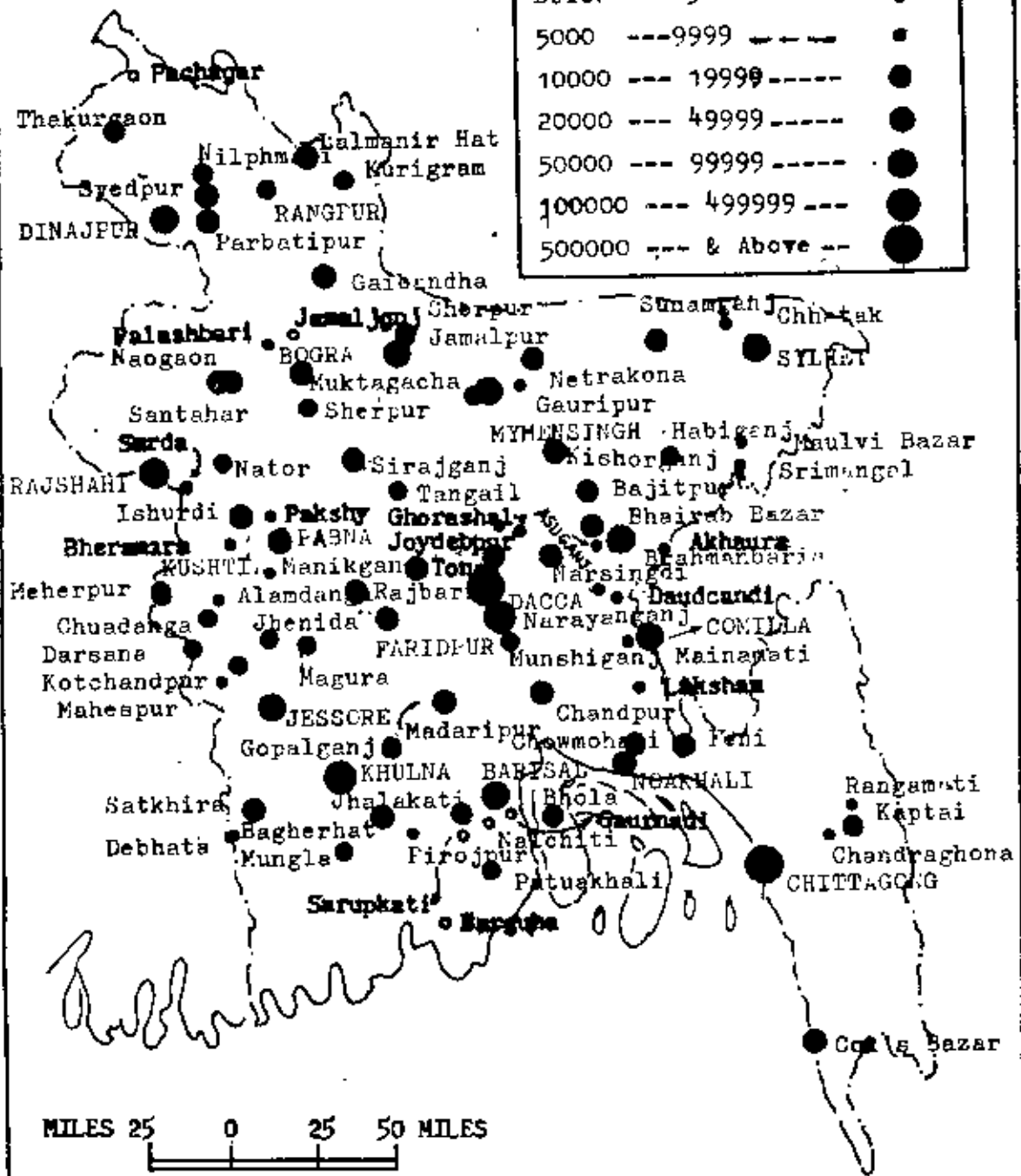
D. URBANISATION DURING THE LAST TWO DECADES (TREND ANALYSIS)

As the tables (3.6, 3.7 and 3.8 indicate that in 1951 Census only 64 centres have been classified as urban and among them 52 fall in the category of small and midium towns (5,000 - 50,000). Though it counts about 80 percent of total urban centres but accomodate less than 50 percent of total urban population and about 42 percent of urban population lived in towns of 50,000 to 1 lakh and over size class. In 1961 census, 78 centres have been classified as urban areas. These include 29. Municipalities, 37 town committees and 12 other sattelite towns.

The percentage of total urban population in the smaller urban centre is decreasing while that of large urban units are increasing. (See Tab 3.6.).

BANGLADESH URBAN CENTRES 1971

Below	---	5000	-----	○
5000	---	9999	-----	●
10000	---	19999	-----	●
20000	---	49999	-----	●
50000	---	99999	-----	●
100000	---	499999	-----	●
500000	---	& Above	-----	●



MILES 25 0 25 50 MILES
SCALE

All size-classes below 20,000 declined in importance with the 10,000- 20,000 suffering the greatest decline. In 1901, 41.30 percent of urban population lived in urban centres having a population of 10,000 - 20,000 but the corresponding figure for 1961 is only 9.07 and in 1971 only 8.35 percent. The urban centres with population of over 20,000 show a continuous growth in subsequent decade till 1951, and after 1951 the lead is rather taken by the largest size-class i.e. one lakh and above category cities. Moreover this size-class always maintained the highest trend in absorbing the maximum percentage of total population. The size-class '1 lakh and over' which in the decade period to 1951 had 30 to 32 percent of total population, rose in the recent decades around 40 to 50 percent.

The analysis leads the conclusion that greater percentage of urban population in Bangla Desh live to the contemporary greatest urban centres. This trend is quite inconformity with the outside world. 'More than half the world people will probably be living in cities of 100,000 or more by 1990¹² to enjoy the economy of scale in the process of human settlement.

E. GROWING URBAN CENTRES

Table 3.6 shows the growth of towns during the last two decades.

11. Nafis Ahmed: OP, Cit. 308, page.

12 Kingely Davis : Urbanisation of Human Population (Cities : Scientific America New York, 1965 P-41

While some centres have steady rate of increase in population during each successive decade, others have widely fluctuating rates. Population as many as eleven urban centres increased at rates higher than moral. This figure includes four cities of the country- Dacca, Khulna, Narayanganj and Chittagong with a rate of growth around five four, three and two times respectively.

Another important fact, reveals from the table 3.7, is a significant number of emerging urban centres in the country. The new small town numbering about nineteen with a population range of 3,000 to 12,000 emerge largely because of industrial development amounted during the last decade.

Most remarkable growth is also found in the already recognised small towns like Shaheb Bazar, Narsingdi, Nilphamari, Jhinedha, Gopalganj, Feni, Chowmahani, Chandroghona and Mongla. The rate of increase ranges there from 200 to 400 percent. The great urban agglomeration experienced at Daulatpur (including Khaleshpur town) is an exception due to the establishment of different industrial complex and post facilities at Khulna.

After the partition Dacca took over not only the political role of Calcutta, but also to a greater extent the commercial, financial, administrative, industrial and academic role of the country as well. Industrial development has also been notable at Khulna, Narayanganj and Chittagong. The two ports at Chittagong and Khulna are also greatly responsible for this large agglomeration.

The other remaining urban centres grow at an usual rate around 100 to 200 percent over the two decades with a few exception like Iswardi, Lalmonirhat

and Saidpur, the three Railway colony towns inhabited by non-Bengali majority. Population strength of those towns is quite considerable.

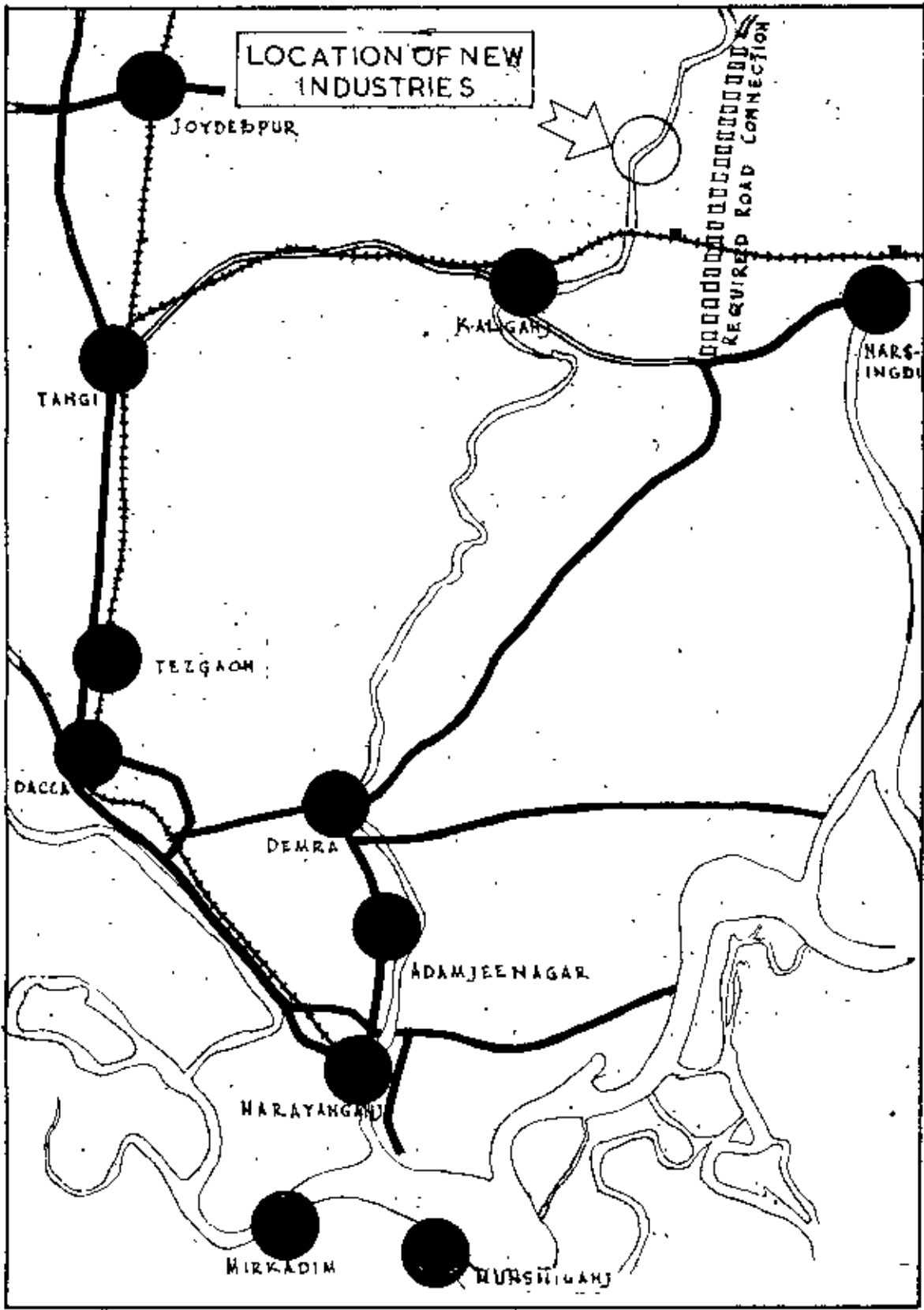
Barisal gives an unique picture. During the decade 1951-61, it shows an absolute fall and by the next decade it improved somehow and represents the moral standard. The reason believed this absolute fall was, perhaps, the huge wazirki migration of Hindu population after partition. The lack of better communication and other urban investments caused delay the further recovery.

Other small urban centres, like, Sreemangal, Nalchiti, Kotchandpur and Mohespur give a static or somewhat negative growth trend as is the case with Debhata. The new town Maynasti grew basing Army Cantonment.

The distribution of urban centres¹³ in Bangla Desh is not uniform. The total four cities of the country locate in the eastern part, and two of them, Dacca and Naraygonj are within a range of 12 miles. Peculiarly enough, there is no city-like urban settlement in the rest of areas. It is true that topographical variation and urban potential difference at different regions are also responsible for that, but the deficiency in planning and resource allocation process to minimise the imbalance development by creating new growth poles in the northern region can not be avoided. In recent years, Rajshahi is gaining much importance as an important seat of administration and educational institution of the country. It is the divisional headquarters of northern districts and a considerable number of regional offices are there. The growth of its University with its attached professional and educational colleges and also a broadcasting centre have considerably to its importance, but its location in the

13. A.M. Patel: The Urban Centres of East Pakistan (The oriental Geographer, Dacca. July 1970) P-15.

LOCATION OF NEW INDUSTRIES



Certain parts of the country have fairly large number of towns, specially in Dacca and Rajshahi divisions, while a vast areas of Chittagong and Khulna division including the Madhupur Tract of Tangail district are covered with forest and less suitable for urbanisation.

The growing new towns of Bangla Desh, as said earlier, constitute an important element of the whole urban scene, giving the following interesting features :

(I) cluster of small towns like Tongi, Joydebpur, Ghorashal, Ashuganj take place at the outer edge of Dacca city ;

(II) the new towns of country side (Akheara, Dauckandi, Lakheha etc.) located at the cross-road exist mainly for their importance as trade centres. The productivity of the catchment area is the controlling factor of their size.

(III) direct establishment of certain urban functions like health, education or industry made the centres, Mirzapur, Sarde and Dewanganj to the status of town. Jamalgonj has come out of its own potentiality as coal reserve is found at the vicinity ;

(IV) finally, after partition, due to the heavy migration from Serisal district , some of its prospective urban nucleus) experienced absolute decrease in the decade 1951-61, and regained moral population during the present decade.

Internal migration is an important demographic phenomena to mould the pattern of urban growth and reflects many socio-economic aspects of a region's development. The rural urban migration trend in Bangla Desh is evident from the growth pattern of urban centres. Continuous pressure on more or less fixed agrarian land causing a mass rural unemployment have been exerting a sort of

"push" towards urban, but the "pull" from the urban centres, even in a humiliating condition, has not been significant enough, perhaps, due to the most neglected condition of our rural living and limited economic scope for the providence of living. In spite of the heavy pressure on land due to increasing rural densities, excessive indebtedness, progressive subdivision and fragmentation of holdings, uncertainty of local and outside markets, decrease and environmental deterioration the present had not moved much toward the town¹⁴ because urban centres are also over burdened to their limited capacity and can hardly provide more economic opportunities and better physical amenities to them. They simply come and tax on the existing urban facilities causing more socio-economic problem.

14. Nafis Ahmed :OP. Cit. P-324.

CHAPTER IV

ORGANISATION AND REGIONAL TRANSPORT

AND

COMMUNICATION

(Historically, transportation has played a significant role in the development of any nation and there is a stringing hiatus between development of transportation and urbanisation. A country's economic growth, the major precondition of urbanisation, is to a great extent dependent upon the efficiency of its communications, because without adequate transport facilities there can be little progress in industry and agriculture. In places with poor communication, the extent of resource mobility is largely deprived due to market facility, imported articles are available only at high prices and locally produced goods yield little profit. Lack of good communications affects not only economically but also culturally isolated people remain conservative and non-urban in nature as they lagged behind the progress outside their world. The degree of urbanisation and influence of communication systems are highly correlated. Several studies show a striking correlation between urban growth and communication net work of the region¹. The present urban complex owes much to the improvement of transport and communication as it plays an important role both in the distribution and growth of urban centres.

The earliest of the communities were first located on the shores of water routes which provided a means of exploring and utilizing the abundant natural resources. Later roads, and much later rail roads linked the early settlements and provided opportunities for expansion of existing communities and creation of new establishments. The advent of air transportation required location of airport at convenient sites adjacent to the existing development and inevitably high ways were constructed to service them. Since road transportation is the most flexible of all the modes of transportation and has the ability of satisfying the diversified demands

1. R.A. Ellefsen : "City- Hinterland Relationships in India" (India's Urban Future Ed. Roy Turner, California Univ. Press 1962.) P-102

of populace for rapid and convenient movement, it has become by far the most dominant mode of transportation.

Communication within the country is provided/ mainly by (1) Water ways (2) Railways and (3) Roads.

1. Water ways : Before the introduction of mechanical power, goods were handled river course. It was the chief means of communication in ancient times and even today cheap and bulky goods which will not perish on the journey are carried by rivers including ours.

Bangla Desh, popularly known as the land of rivers, the Ganges (Padma), Brahmaputra (Jamuna) and Meghna with their hundreds of branches of tributaries and the inland canals connecting them form an excellent system of inland water transport. There are regular steamer services on these rivers althrough the year. That from Barisal to Chittagong is particularly important for the transport of bulky agricultural products to the ports of Chittagong for export.

The part of Chalna is connected with the water transport system of the western part of the country as opposed to the northern region due to the moribund and decaying nature of the most of the rivers. Present position of water transportation to and into Rajshahi division is very limited due to the shifting of channels in the Jamuna and the difficulty of establishing docking facilities in the flood season, owing to insufficient depth of many rivers that limit the role of motorised carriers in dry season. Motorised water transport is confined to the main rivers along the eastern and southern boundaries of the division and is limited for the reason just stated. The towns Kushtia and Jessore not get any

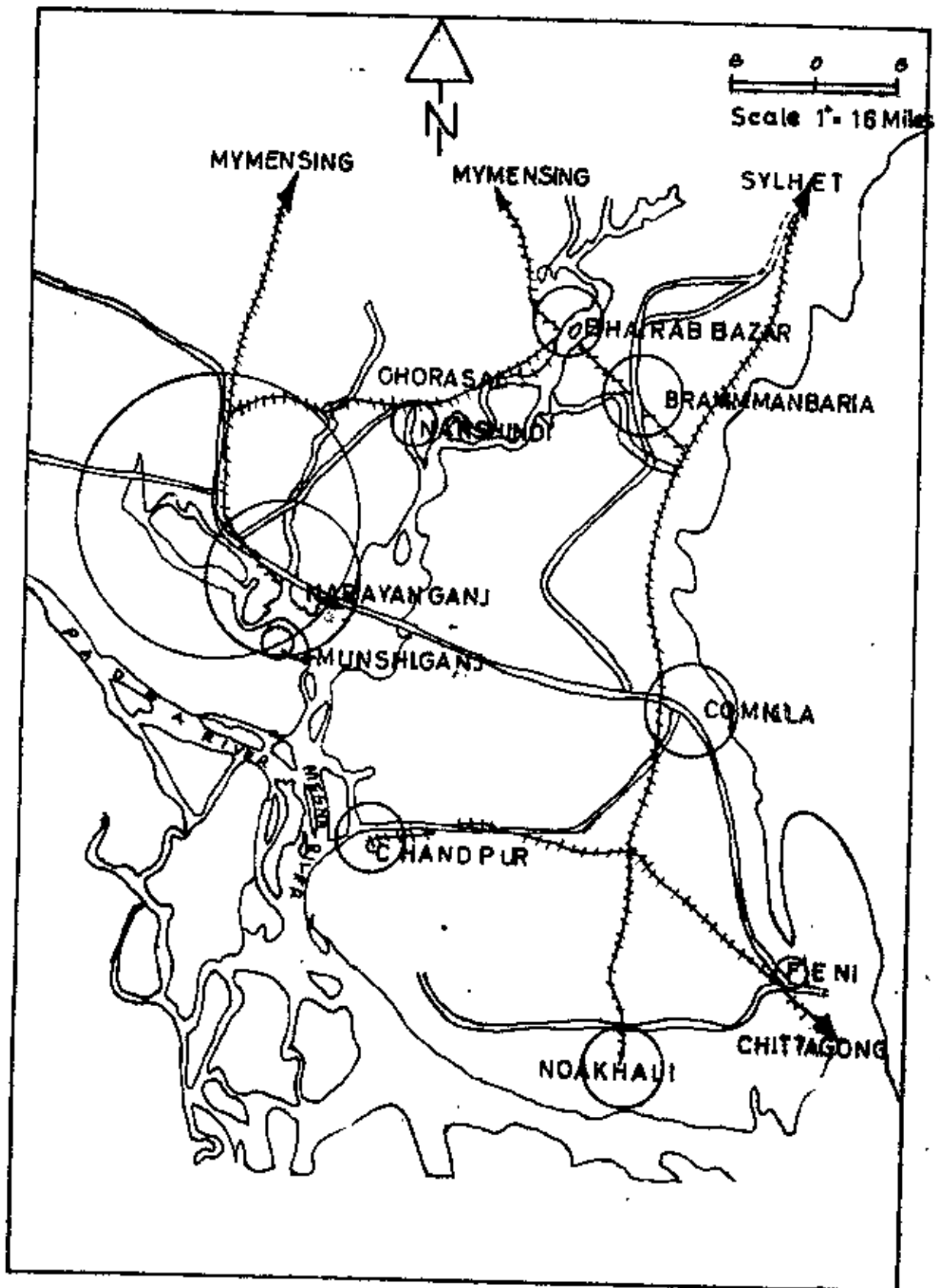
benefit. The country boats functions in places of secondary feeder roads and carry a large volume of traffic during the rainy season.

Chittagong, Dacca, Narayanonj and Khulna, the four most important urban centres of the country form a triangular zone of 'Inland water Borne Traffic. The capital Dacca itself is located for water communication through the navigable Bariganga. Water communication in Dacca District is maintained by a net work of channels between large rivers. Narayanonj occupies an excellent situation on the lower Sitalakhya and through the Dhakeswari, is connected with Meghna. This gives it steamer route connection with Dacca, Gwalondo, Chandpur, Madaripur, Shairab Bazar, Sylhet, Fenchugonj, Barisal, Khulna, Chalna and Chittagong. Chandpur, an important port town, close to the junction of Meghna and Padma, is an outlet for jute and other products of the region. The Karnaphuli river with other small tributaries is the chief means of transport into the interior part of Chittagong and the Chittagong Hill Tracts.

The Khulna- Barisal route was opened as far back as 1864, steamers have been using the north-south rivers of Barisal since 1880, and a few east-west links are also maintained². Barisal and Patuakhali districts are also well served by steamer and during the rains small feeder crafts operate ply on the six tributaries of Brahmaputra. Jhalakati is a large centre of trade in this area.

The Brahmaputra (Jamuna) is navigable by steamers as far as 800 miles from the sea. Sirajgonj an emporium for jute and other agricultural products, stands on its right bank. In Sylhet, during the rains, the big steamers come up by Meghna-Surva via Shairab Bazar and small steamers come upto Ekhatok. There was particularly

MAJOR INDUSTRIAL CENTRES AND RAILWAY LINK



no roads in Sylhet before the British came and all communication was by water. It is not only in Sylhet, but all over the Bangla Desh, among all forms of transport and communication, water ways dominate the scene³.

There are about 2, 700 miles of navigable water ways on which regular steamers ply. Chendpur, Narayanganj, Goalundo, Serajgonj, Barisal and Khulna are the main river ports of the country. Bangla Desh Rly maintains a flotilla of steamers that operates between Dhittagong, Narayanganj, Khulna and Mongla.

According to 1960s survey⁴ conducted by IWTA, about more than 22,00 steamers, motor launches and mechanised boats were operating in the country with a capacity to carry 1,07,000 passengers and 214200 tons of goods. Besides there are more than 3 lakhs country boat with a carrying capacity of about 14 lakhs passengers and 12 lakhs ton of goods. There may have a programme to mechanise a good number of country boats to make the water ways communication more efficient. During 1966-67 the number of passenger launch has increased considerably but in case with steamer it has been reversed.

Inland Water Transport Authority came into being in 1958 with an object to develop the waterways communication within the country. It performs various functions relating to the development and control of inland water transport including its major achievements by the establishment of powered ferry services between (1) Narayanganj- Daudkendi, (2) Daura- Tarabo, (3) Aricho-Nagarbari and (4) Aricha-Goalundo connecting main highways of the country.

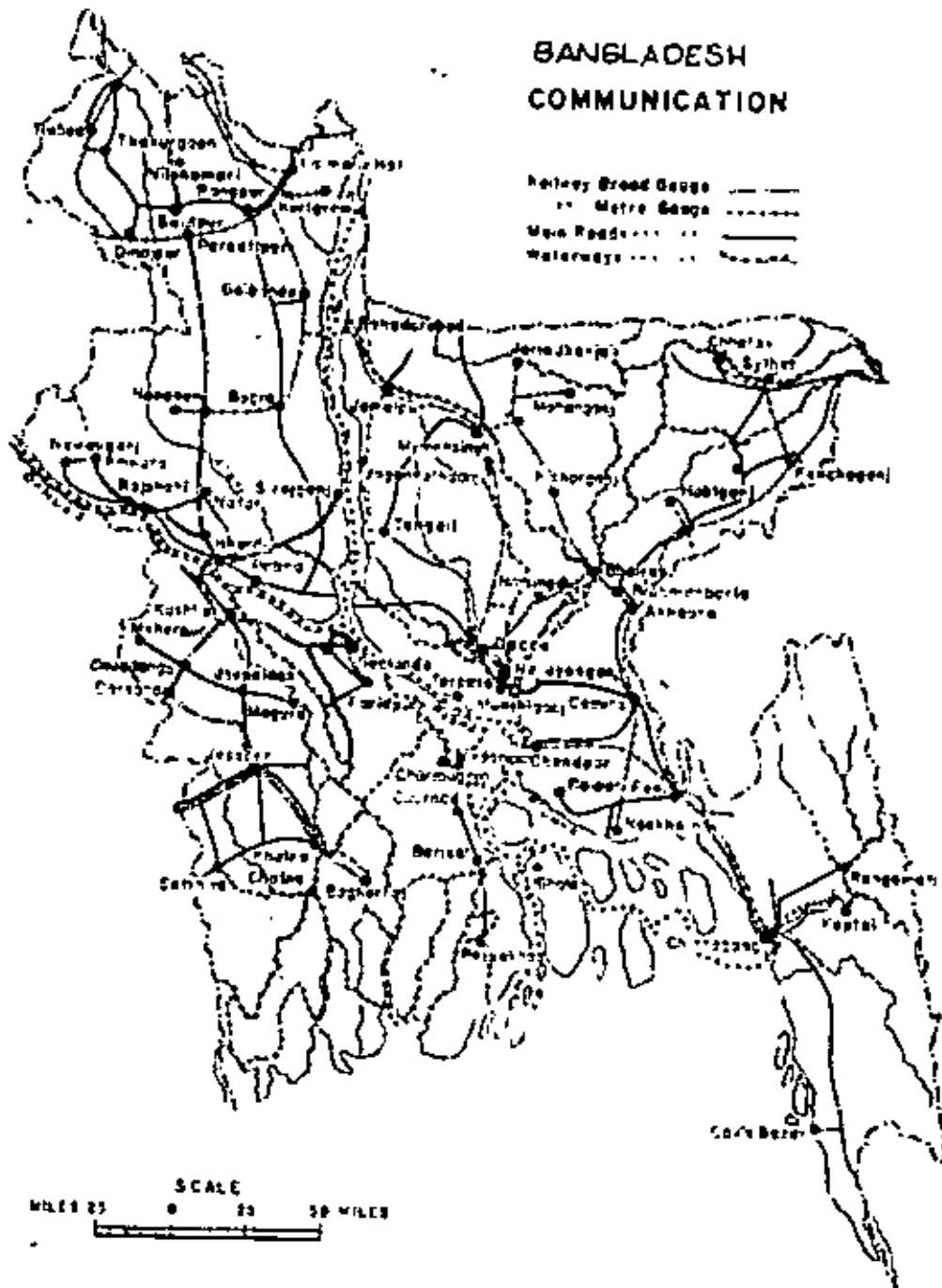
In the process of inland waterways development, comparatively less deve-

3. Ibid.

4. *IWTA : Inland Water Transport Authority of Bangla Desh, Head Office, Dacca. Unofficial Source, IWTA, Dacca.

BANGLADESH COMMUNICATION

Railway Broad Gauge
" Metro Gauge
Main Roads
Waterways



ঢাকা বিশ্ববিদ্যালয়

loped areas of North Bengal may be connected to the important ports and port-towns of the country by establishing new river ports there. Location of such a new port may be at Bere, Shaharapur or Ullapara of Pabna District.

After the achievement of independence, a new dimension of communication has opened up with India. Before the war 1965 there was a convenient route through the Ganga and Jamuna to connect Calcutta port with Assam and Tripura states. This can now be revived and developed for our mutual benefits. This will help us to boost up our trade and commerce and help thereby to earn precious foreign exchange.

Railways

Railways are the most popular means of communication. Long journey on these involve little loss of time and heavy freight can be carried easily. In facilitating the movement of people and goods railways have also helped to reduce the danger of famine. Besides the economic and strategic value, railways are also important source of revenue to the Govt. and provide employment for many people.

Bengal was a century behind other north Indian Provinces in material progress which experienced neither any true road system nor any railway as late as 1862 when first railway (Calcutta- Kushtia) appear in the scene⁵. By 1901 the railway system was much developed and owed its origin to political rather than commercial or agricultural reasons⁶. Though railways were originally built in Bengal to link up the existing urban centres located on the banks of river, and have therefore, not materially affected such the distributional pattern of exis-

5. A.M.Malik : Hundred Years of Pakistan Railway (1862-1962) Karachi, 1962. p.14

6. Ibid.

ting urban centres; but it left a negative effect to the economy in extracting out the resource from the region. The main object of the British was to supply Calcutta with raw materials for export and to carry manufactured goods from there to the consumers in East Bengal and there by to make Calcutta region as a seat colonial development⁷. This was actually not even a blessing for the Calcutta region as it created a severe imbalance in the process of development there⁸. Anyway, it continued to capture an increasing percentage of total freight and passenger diverted from the river ways of south and South-western part of Bangla Desh.

Bangla Desh had altogether 1714.47 total route mileage of railways serving about 40.5 percent of total population through 417 stations operating over 63 routes. Of this mileage broad gauge (5 ft. 6 in) was 545.63 miles, metre gauge (3 ft. 8 in) 1146.64 miles and narrow gauge (2 ft. 6 in) 19.75 miles. The total length of tracks operated was 2559.22 miles serving about the 30 percent of total area of the country in 1961⁹.

Railways : West of Jamuna

The Padma and Jamuna demarcates the meter gauge in east to the area of broad gauge in the west with a few exception in the Rajshahi division where about 320 miles of meter gauge prevail connecting Kurigram, Parbatipur, Dinajpur,

7. Nafis Ahmed: Op.cit. p-250.

8. A.N. Bose : Economic Development of Calcutta Metropolitan District, Indian Journal of Region Science. Vol. 1 No.1 Kharagpur, p-39.

9. A.M. Malik : Op.cit. P-14.

Ruhia, Thakurgaon, Bogra, Southern, Amara, Godagari and Nawabgonj. Actually it serves as feeder to the broad gauge system connecting at Santahar and Farhatipur with a spur to the ferry service-across the Jamuna at Phulchari ghat. The broad gauge main line stretches from Khulna to Chilahati branching to Benapole, Darsana, Goalundoghat, Faridpur, Bhatipara, Kumarkhali ghat, Raita, Sirajgonj and Rajshahi. It connects all the western region except Barisal and Patuakhali. The traffic is heaviest on the line from Khulna to Goalundo, Khulna to Sirajgonj and Sirajgonj to Rajshahi. Khulna division including the district of Faridpur, there is, 355.57 miles broad gauge crossing the Harding Bridge at Paksey, and thus connects Rajshahi division with the division of Khulna¹⁰.

Railways on the Eastern and Central Zone

The main metre gauge system in the Eastern and Central regions are divided into two commercial as well as transportation districts of Dacca and Pahartali controlled by Shairab Bazar and Chittagong respectively.

According to recent statistic, it is estimated that Bangla Desh Railways service an area of nearly 17,510 sq.miles or about 33 percent of the total area

10. Pakistan Eastern Railway Time Table & Guide, Dacca June 1, 1970.

of nearly 17.516 sq. miles or about 33 percent of the total area of the country by an intricate system of railway networks connecting 417 stations in all 30 of which are railway junctions¹¹.

The impact of rail transport on the location of growing urban centres is apparent which have influenced the general distribution of population by an over all effect on trade and industry. Some towns owe their rise and subsequent development mainly to the railways, examples are, Farbatipur, Santahar, Narayen-gonj and Iowardi, Saidpur, the sixth largest town in Bangla Desh is a creation of railways. Formerly, it was on the important Calcutta-Dalpaiguri route and was somewhat livelier place. At present it has the major workshop for all the broad gauge lines.

The cluster of towns in the South-Western districts of Kushtia and Jessore can be attributed largely to the better railway transport facilities the area enjoys. Because of its silted rivers, surface transport (i.e. road and rail road) received greater importance ; and because of its proximity to Calcutta. British trading interest was extensive and commercial activities better developed there.

All these worked as potential inputs for prospective urban growth in this area. After the war of 1965, the communication between Calcutta and Bangla Desh stopped which cast a fade shadow over the development of this region for some-time which starts gaining momentum gradually out of its own resources.

11. Ibid.

Table- 4.1.

DEVELOPMENT OF RAILWAYS

Year	Nbs.of passenger (Mln.)	Distance covered (Mln.miles)	Cargo carried (Mln.tonnes)	Cargo carried area (over- red.
1965-66	67.2	1788	5.6	856.0
1966-67	73.0	2005	5.1	809.0
1967-68	70.87	2077	4.8	805.0
1968-69	72.83	2505	4.7	725.0

Source : Dainik Bangla : Feb.5, 1972, Decca, "Economic Reconstruction of
Bangla Desh : Transport" by Prof.S.R.F.Rahman.

The fig. shows two reverse trends : (i) The number of railway passen-
gers and the distance they travelled are increasing gradually, but (ii) the
cargo load showing a diminishing trend. So the conclusion may arrive that
the bulk has taken alternative means and probably that is roads.

ROADS

In an agricultural country like Bangla Desh roads are essential for
carrying farm produce from villages to the markets, raw materials to the fac-
tories and for distributing manufactured products to the nearby villages. In
our country half of the year remains dry and in the rest half only three months
may be taken as effective for transportation by water ways. During the dry
season in over 70 percent of the land the means of communication and transport
is by roads and railways¹².

12. Physical Planning Progress Op.cit. P-

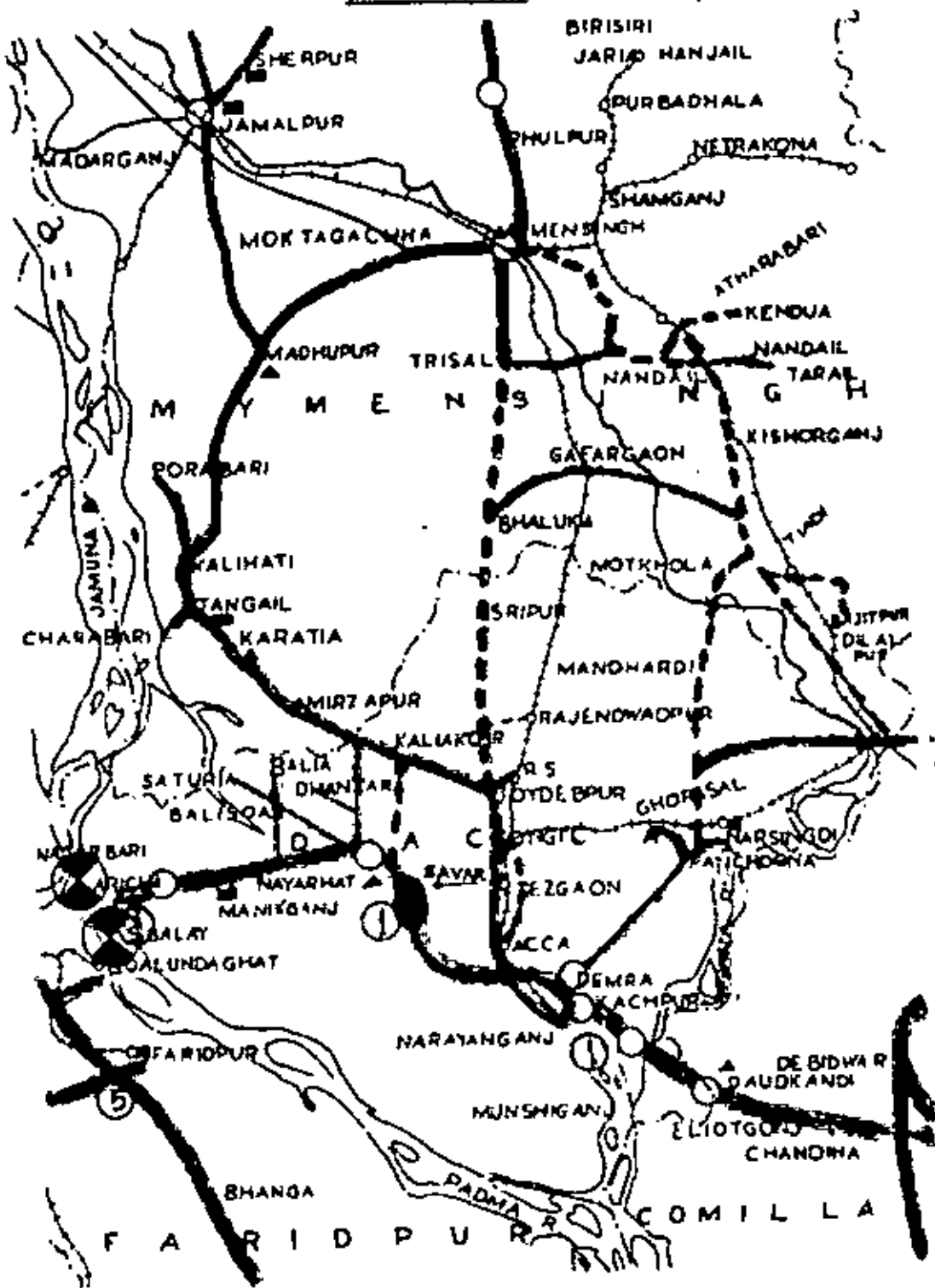
Before the middle of the 16th Century Bangla Desh had practically no roads. During the Muslim period Sher Shah built the famous Grand Trunk Road that connects Delhi with the eastern province. It enters in Bangla Desh through Benapole in Jessore district¹³. The Mughals built a number of roads passing through Bangla Desh most of which have been disappeared as a result of neglect and river action.

*After partition there was only 265 miles of paved roads and the largest of superior surfaced road was a 35 mile section between Sylhet and Imabil on the route of Shillong. In fact the road system consisted in short of segments radiating from principal centres of population and economic activity. Connections between these centres did not exist except possibly during the dry season. In 1953, in the whole province there were 990 miles of Government, district board and municipal metalled road and unmetalled milage did not exceed 24,446. Union Board and village roads were 18 miles and 32,561 miles of metalled and unmetalled category respectively¹³.

During the last decade, noted worthy development is the Dacca-Aricha Road (55 miles) constructed to connect North Bengal and Khulna via Nagarbari and Goulundo ghat respectively by modern ferry system. Another is the largest trunk road of the country (about 350 miles) from Cox's Bazar and Mymensingh via

13. Wafiq Ahmad : Op.cit. P-259.

SAVAR AREA MAP



SAVAR → ●

via Chittagong, Comilla and Dacca, interrupted by a single ferry only at Daudkandi on the Meghna river. Other major roads now in service are as follows :

(1) Jessore - Jhansidah Road, 67 miles, (2) Bogra-Rangpur, 68 miles, (3) Sherpur- Sirajgonj, 50 miles, (4) Ataikola (Pabna) - Bogra, 64 miles, (6) Rangpur-Dinajpur, 35 miles ; (6) Goalundo- Magura, 33 miles¹⁴. The Bangla Desh Trunk Roads provide the link in the system of Asian Highways. The following trunk roads connecting (1) Teknaf in the farthest south with Mymensingh, (2) Comilla- Sylhet, (3) Nagarbari-Bogra-Rangpur- Dinajpur- Tetulia, (4) Khulna- Jessore- Kushtia- Inwardi- Natore- Rajshahi- Nawabgonj and (5) Barisal-Faridpur- Goalundo- Magura- Chandraghona- Meherpur, are of recent origin. At present the country has 1,983 miles of metalled and 57,000 miles of unmetalled roads¹⁵.

The typical features of our road system are :

- (i) they run parallel and close to the railways; though the recent development gives a bit different picture;
- (ii) the all over network of transport and communication is not optimally planned rather a haphazard patchwork to connect the isolated development cent without giving proportion benefits to the country¹⁶.

Our major industrial- urban centres Dacca, Chittagong and Khulna are located on the banks of Buriganga, Karnafuli and Rupsa- Bhairab river respectively. Potential industrial- urban centres like Narayngonj and Naraingdi are

14. Ibid.

15. A.R.Choudhury: Road Development in East Pakistan: past and present; Highways in East Pakistan, Bulletin, 1958-68 Great Decade of Development, R & H, Dacca. P-19.

16. Nafis Ahmed : Op.cit. P- 259.

developing along the river Sitalakhye . But the roads and railways cast their obvious influence in the process of these centres' development structure. Dacca stretches from Naraindi and Narayanganj and from Narayanganj to Dacca towards south and south-east, and towards north and north-west it stretches upto Jaydebpur via Tongi. The influence is also prominent in other industrial metropolises. In Chittagong from Fauzdarhat to the south of Karnafuli, from Chittagong to Kaptai and Kaptai to Hathhezari; in Khulna from Khaliapur to Gaultipur, more than 80 percent of the country's total industrial development took place along these belts¹⁷.

The Ribbon pattern of development in our many towns like Rajshahi, Nator, Chandpur, Pabna and Mymensingh are found along the major routes of transportation. Indigenous forms of transportation are more efficient encouraging travel to and from the city. Villagers are considered to fall within the ribbon if they are within one mile of rail line.

From the research of Prof. S.M.F. Rahman¹⁸, it reveals that if the following new roads are to be built to connect the subdivisional headquarters with their nearest trunk routes, it will facilitate with easy means of communication from there to Dacca.

17. Physical Planning Progress. Op=Cit. P=

18. Prof. S.M.F.Rahman : Economic Reconstruction of Bangla Desh
"Dainik Bangla" Feb. 5,1972, Dacca.

Table 4.2 (Proposal for New Roads)

Name of the Sub-divisional Head Quarters.	Pop ^N (Lakh)	To be connected with	Roads to be built (Miles)	No. of Passengers (Lakhs) to be benefited from this new construction
Sirajgonj	11.8	Dogra Trunk Rd.	12	.92
Milpahari	6.39	Milpahari-Saidpur Rd.	14	.52
Patukhali	10.70	Patukhali-Barisal	25	.43
Bagerhat	7.93	Bagerhat-Khalna	20	.40
Netrokona	9.61	Netrokona-Hymensingh	25	.38
Pirojpur	9.34	Pirojpur-Barisal	28	.33
Gopalgonj	6.87	Gopalgonj-Faridpur	45	.15

From the above table it is estimated that about 60 lakhs of people would be benefited from the proposed total 170 miles roads.

CHAPTER V

URBAN STRUCTURE

Development of urban structure reflects the economic attainments, & level of technological knowhow and socio-cultural pattern of a people to a greater extent in the form of street pattern, types of buildings and the distribution and arrangement of urban land uses.

No two towns have sites that are exactly similar, but it is not difficult to recognise well-defined categories of town sites. Certain physical features, for one reason or another, have been favoured for the setting of towns and provide a basis for classification of towns according to site type. The site is enlarged in the process of urban growth, yet it nevertheless remains an area local and relatively restricted, and as such is only part of a wide setting which affects the origin and growth of urban characteristics¹. Bengal Desh is a land of rivers, and most of her towns locate at their banks.

Although the internal pattern of each city is unique, in its particular combination of details, most cities have business, industrial and residential districts. The forces underlying the pattern can be appreciated if pattern is focussed on three generalisation of arrangements- by concentric zones, Sectors and multiple nuclei².

Nature* of Human Settlement in Urban Areas

A. Concentric Zones : According to concentric zone theory, the pattern of growth

1. Arthur E. Snellie : The Geography of Towns (London : Hutchinson and Co.Ltd. 1953) P-42.

2. Egon E. Beigel : Urban Sociology (London, McGraw Hill Co. 1955) PP 94-113.

of the city can be best understood in terms of five concentric zones**.

(1) The Central Business District is the focus. It is the down-town retail district with its departmental stores, smart shops, Office head quarters.

Encircling the down town retail district is the whole sale business district.³

Saderghat in old Dacca and the Motijheel, Gulistan and Segun bagicha areas in new Dacca are close to the pattern. Administrative zone in district head quarter does not fall in CBD, rather this forms a district zone with superior environment.

* All these concepts developed according to the socio-economic structure, one of the main forces behind the urban form, in western countries, which is obviously not similar to ours. Our urban form is a blending mixture of western as well as indigenous culture. This is true to the case of all old towns in our country. Still some similarities are found in our developed city-scape, specially in Dacca, where American urban pattern has been imported to introduce a modern look to a great extent. Moreover, the theories give a scientific basis to analyse the urban land-use nature and its process of growth and decay. So, in course the theoretical discussion, some illustrations are set from the condition of Dacca and other related urban centres of our own.

3. Op. cit. Begei : P 94. ** Theory propounded by Burgess.

(2) The Zone in Transition, encircling the down town area is a zone of residential deterioration. Business and light manufacturing encroach in residential areas characterised by rooming houses. In this zones, principal slums are with their submerged region of poverty, degradation and disease and their under worlds of vices. In most cases these areas are inhabited largely by colonics of immigrants. Arambag and Fakirpola of New Dacca area may come under this category.

(3) The Zone of Working Men's (independent) Homes: This is inhabited by industrial workers who have escaped the zone in transition but also desire to live within easy access of this work. In many American cities second generation immigrants are important segments of the population in this area. Tejgeon may fall in this group.

(4) The Zone of Better Residence : This is made up of single family dwellings of exclusive restricted districts and of high class apartment buildings. Dharmoni residential area (Dacca) is a good example in this line.

(5) finally, Commuters' Zone which is located, often, beyond the city limit in suburban areas ^{or} in satellite cities. This is a zone of spotty development of high class residences along lines of rapid travel, as Gulshan Model Town, (Dacca).

The study of urban structure needs the interpretation of the existing layout of roads. (2) pattern of land-use and the (3) characteristics of associated buildings. Land use pattern of many towns of different character and magnitude have been studied and the deduced generalization has been put in this paper.

Our cities bear the impression of western civilization as well as indigenous cultural forces acted on them. The presence of chain of mosques, tombs, Idgah reflect the influence of Muslim cultural tradition. There are certain district characteristic like street bazar, house-shop combination are typically common to the developing countries of south-east Asia with preindustrial urban status. The internal structure of urban form, specially the narrow streets clearly the indicate the low level of our technological development and least prevalence of vehicular traffic.

Road Pattern

The roads of our town is a result of natural growth and not of conscious design. They can be broadly divided into the following classes on the basis of their functions :

(1) Primary or Arterial Roads : they link the town with their inland and also other towns. These roads carry traffic which originates outside the towns and they have destination inside the towns or vice-versa, and also carry through traffic which has got no function in the city at all.

(2) Secondary or Sub-arterial Roads : are the major roads of the town in linear or radial pattern. They carry the main burden of the inter-town traffic predominantly vehicular traffic. The main commercial or shopping areas of the town are located on these roads. They inter connect the neighbourhood roads of the town, and take different name at different section. They consist of metalled and brick-pave surface with 8 to 20 feet width.

(3) Tertiary or Neighbourhood Roads are the roads other than primary and secondary, serving the inter-neighbourhood communication. They also provide access to secondary and primary roads. Their width is generally not more than 10 feet and often less than 8 feet.

The streets are irregular in pattern, narrow and crooked. The main vehicular thoroughfare are also not always satisfactory. They are often without side walks and encroached upon by booth and projecting open fronts of the shops line on them. The side streets and alley are usually much narrower and so crooked as to be almost impassable for wheeled vehicle⁴.

The road network in newly developed city-site gives a better account with their gridiron or rectilinear pattern. The residential and commercial built up during the last decade display a rectangular pattern of streets relatively wider and in most of the cases provide side walks. The inter-urban mass transport system has improved a lot though it could not satisfy the ever increasing volume of traffic to and from fast growing metropolitan centre. The system also links the outlying suburbs. Absence of any official record of daily traffic movement of the city discourages any analytical study. However the existing bus services in Dacca are run by

- (I) Dacca Motor Vehicle Association
- (II) Bengal Gosh Road Transport Corporation

4. F. Karim Khan & M. Masood : "Urban Structure of Comilla Town"
(Oriental geographer, Dacca, July, 62)

The Corporation bus run along almost all the roads with about 120 buses plying on various routes. The average number of passenger travelling perday is 1,00,000 which represents about 12% of Dacca's day population⁵⁴.

Bicycles, cycle-rickshaws and pedestrain account the major volume of traffic. Motor vehicles and animal-drawn carts are frequently seen on the streets of towns. Ofcourse, the latter is gradually decaying in use. Cycle-rickshaws provide the most popular and cheap means of transport.

Pattern of land-use

From a simple look over our urban scene, with a few exception of recently developed metropolitan sites, it is quite evident that our towns have developed naturally, not in a planned manner. So, it is obvious that their growth has been haphazard, inefficient and unhealthy. Mixed land-use is prominent in all towns as there was no restriction in the past which is now posing a great threat for future planning.

Sub-divisional and zoning regulation was almost unknown to them; even to-day common dwellers do not much think of the benefits of planned living. Due to the lack of modern mass transport facilities, people wants to live close to their business area resulting a small areal space with high density of living in urban scene.

5. E.P.R.T.C. 4th Anniversary celebration, Dacca, 1965.

However, the general pattern of land-use has been categorically analysed synthesising from the experience of different urban centres, under the following headings of separate zones constitute the whole urban space.

Residential Zone : Residential areas are scattered all over the towns. Even in business centres, ground floor is used for commercial activity, while the upper floors are being used for residential purposes. There exists a great confusion of land uses due to the intermingling of shops, commercial premises, small factories, godowns, government and semi-government offices within the same zone and the district residential neighbourhood are hardly identifiable. Acute shortage of residential accommodation is recently felt, specially, in growing industrial town like Chandpur.

45553)
Old areas are densely populated in comparison to newly developed areas. For example, in Rajshahi, the old areas like Sahab Bazar, Ghoswara, Segarpore, Rani bazar and Kumarpara are most densely populated whereas new areas along the greater Road, Kazi hats, Laxmipur and Sapura are comparative livable, and some amount of environmental opportunities are found there.

Within the residential areas there is almost no public and private planned open space, and no play ground for boys and recreational facilities for the elderly people are rare available object. Incidental open space or fallow land becomes play ground under the feet of young generation.

Residential cum commercial, business and industrial land use in the same area, which is often found in our town, leads to a hub of most undesirable crowd and congestion, a zone of residential slum. With the passage of time.

Old residential neighbourhood have deteriorated and new upper class area has developed. There are some degree of community consciousness and personal identification of the inhabitant with these neighbourhoods. Examples are : Nikeripara (area inhabited by fishermen, Senia para (inhabited by Majority of Hindus business men) and so on. Ofcourse, these boundaries are weathering out now-a-days and to embrace all is becoming the trend.

2. Commercial Zone: The central business district which is the chief nucleus of the commercial activities is in most cases located at the heart of the town and popularly known as bazar or chowk. It develops along the main roads taking a linear pattern though not always under the same shade. But with a few exception of newly developed shopping centres in cities, they are unlike the precinct type or what central business district means in western countries, and are not free from traffic hazard. In addition to the wholesale and retail transaction of stationery, grocery, textile products, medicines, books and shoes, raw fruit, sweetmeat shops, tea and pan- cigarette shops, and small service industries like laundry, hair-cutting saloon, tailoring shop, small flour mill and vehicle repairing work shops are found, there. Banks, restaurants, hotels and some private business offices are established facing the compound roads.

4. The zone is crowded with numberless small retail shops which deal not only food, cloth, jewellery and hardware but agricultural products and things needed for agriculture too. Groups of competing merchants tend to occupy a particular section and generally some streets or areas are identified in dealing certain particular commodity like 'Sonapati' means an area deals in gold and ornaments. Recently a trend

is noticed from the government authority to develop a better marketing space in the form of New Market in all district and sub-divisional head quarter towns.

5. Government Zone : The administrative area or civil line occupies an important part of the town. The important government offices as the collectorate, civil court, police lines, municipal office jail etc. are located in this area. The area segregation of the Government zone is more or less marked. Good buildings housing the government offices, spacious bungalows on western style for government officers and wide metalled roads make this area distinctly different from other parts of the town. Where accommodation for housing of the new offices is not available there, they are often housed in requisitioned private houses in some residential areas. This recent trend of administrative location is marked along the main road in a scattered manner causing great inconvenience to the public and effective administration.

4. The academic institutions of both types : professional and general have been located wherever the space available without giving any consideration to its environment. Somewhere it is in the congested central business district as the case with Rajshahi Government college and Collegiate School, Comilla Zilla School and Pabna Govt. Girls High School; somewhere within better neighbourhood and most of them are outside residential neighbourhood.

The newly developed campuses of Rajshahi, Chittagong and Myenaingh

* A newly designed shopping centre.

**COMILLA TOWN & SURROUNDING
EXISTING LAND-USE, 1966**



- LEGEND**
- 1. Residential
 - 2. Commercial
 - 3. Industrial
 - 4. Public
 - 5. Forest
 - 6. Agricultural
 - 7. Water
 - 8. Bare land
 - 9. Other
 - 10. Unutilized
 - 11. Open spaces
 - 12. Parks
 - 13. Sports grounds
 - 14. Cemeteries
 - 15. Religious
 - 16. Educational
 - 17. Health
 - 18. Social
 - 19. Cultural
 - 20. Recreational
 - 21. Amusement
 - 22. Entertainment
 - 23. Public buildings
 - 24. Government
 - 25. Military
 - 26. Defence
 - 27. Airports
 - 28. Railways
 - 29. Roads
 - 30. Canals
 - 31. Rivers
 - 32. Lakes
 - 33. Ponds
 - 34. Dams
 - 35. Embankments
 - 36. Fences
 - 37. Walls
 - 38. Gates
 - 39. Bridges
 - 40. Tunnels
 - 41. Pipelines
 - 42. Power lines
 - 43. Telephone lines
 - 44. Gas lines
 - 45. Sewer lines
 - 46. Drainage lines
 - 47. Irrigation lines
 - 48. Fences
 - 49. Walls
 - 50. Gates
 - 51. Bridges
 - 52. Tunnels
 - 53. Pipelines
 - 54. Power lines
 - 55. Telephone lines
 - 56. Gas lines
 - 57. Sewer lines
 - 58. Drainage lines
 - 59. Irrigation lines
 - 60. Fences
 - 61. Walls
 - 62. Gates
 - 63. Bridges
 - 64. Tunnels
 - 65. Pipelines
 - 66. Power lines
 - 67. Telephone lines
 - 68. Gas lines
 - 69. Sewer lines
 - 70. Drainage lines
 - 71. Irrigation lines
 - 72. Fences
 - 73. Walls
 - 74. Gates
 - 75. Bridges
 - 76. Tunnels
 - 77. Pipelines
 - 78. Power lines
 - 79. Telephone lines
 - 80. Gas lines
 - 81. Sewer lines
 - 82. Drainage lines
 - 83. Irrigation lines
 - 84. Fences
 - 85. Walls
 - 86. Gates
 - 87. Bridges
 - 88. Tunnels
 - 89. Pipelines
 - 90. Power lines
 - 91. Telephone lines
 - 92. Gas lines
 - 93. Sewer lines
 - 94. Drainage lines
 - 95. Irrigation lines
 - 96. Fences
 - 97. Walls
 - 98. Gates
 - 99. Bridges
 - 100. Tunnels

SOURCE
Map of Comilla District
Public, District Office

15-1

University give a different view. They are away from the noise of city and associated with a natural surrounding guided by a considerable amount of planning quality. Deficiencies in planning are there also, but they are not so much handicapped like some famous old institutions of the capital- the Decca University, Engineering University, Medical college, Decca Quaid-e-Azam College and Jagannath College. To illustrate this lack of Planning, it may be mentioned that few years back a girl was run over by an automobile while crossing the road to go to class from girls' dormitory of the Decca University⁶. The environmental condition of Sir Salimullah Medical college, located at old Decca is more deplorable.

Social Space

The social and recreational areas of the towns, like Town Hall, Stadium and Edgah* are generally located around the central business district at different spots. Town Hall is the civic centre and often this is used as a venue for musical, dancing or other functions. The stadium provides the facilities for local games and sports. It is also the venue for annual agricultural and industrial exhibition. Public parks and play grounds are there but quite insufficient to demand. In some town embankment is used for morning and evening walk of the people. There are normally two to four cinema hall in medium and big towns located most of them in central business district. The restaurant is, however, a must in all the neighbourhood centre of the town.

6. Muzer Mubasher Ali: University Area Planning and Architecture
Third Seminar on Arch. P- 108.

* Edgah is a place where the Muslim offer congregation prayer twice a year on the occasion of Ed-ul Fitr and Ed-ul Azha.

Quantitative Analysis of Land-use Pattern

Table 5.1

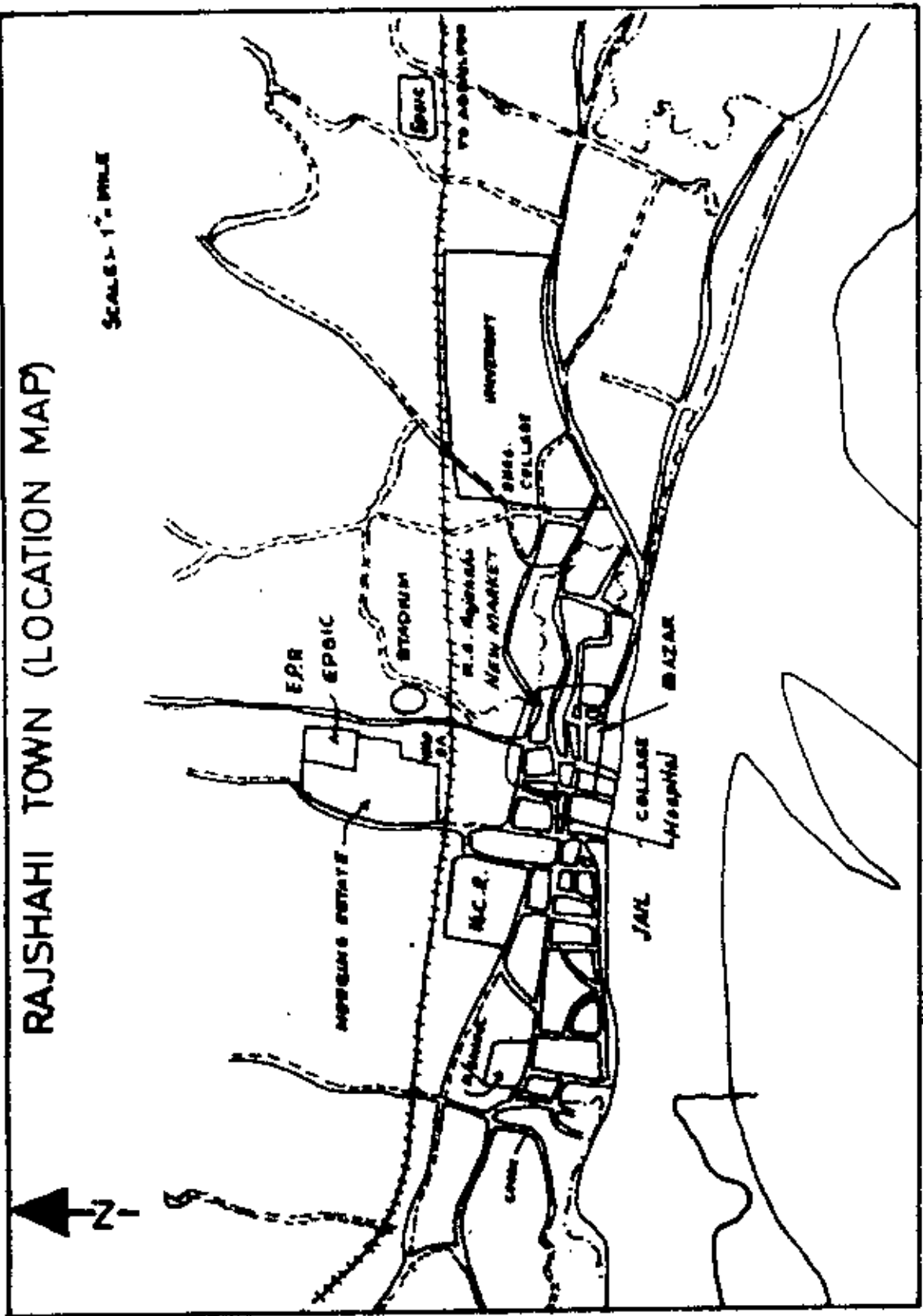
Sl. no. of use (zone)	Rajshahi		Dowla		Chandpur		Bogra	
	Area (acre)	P.C. of total area.	Area	P.C.	Area	P.C.	Area	P.C.
1. Commercial	42.00	0.90	60.00	2.40	89.50	4.30	75.00	8.54
2. Government	167.58	3.70	105.00	3.39	184.50	9.30	139.70	15.95
3. Residential	1270.50	28.10	1127.00	42.00	610.00	30.80	240.00	27.80
4. Education	1350.00	29.80	42.00	1.57	59.75	3.00	47.30	5.40
5. Agriculture	137.00	3.00	660.00	24.61	417.00	20.28	168.50	18.34
6. Industry	320.50	7.20	40.00	1.50	53.80	2.70	44.70	5.10
7. Embankment	data do not available	---	108.00	12.00	14.40	0.70	---	---
8. Roads	555.00	12.30	108.00	4.40	50.00	2.50	120.00	4.5
9. Tank, open space & Park	681.00	15.00	263.00	9.38	210.00	10.60	154.00	6.75
10. River Canal	---	---	235	8.79	6.25 (Jetty)	.30	---	---
	4529.80	100.00	2680.65	100	1987.25	100	877.00	100.00

Source : (1) Author's unpublished paper : Land-use Analysis.

(2) U.O.D., Dacca.

RAJSHAHI TOWN (LOCATION MAP)

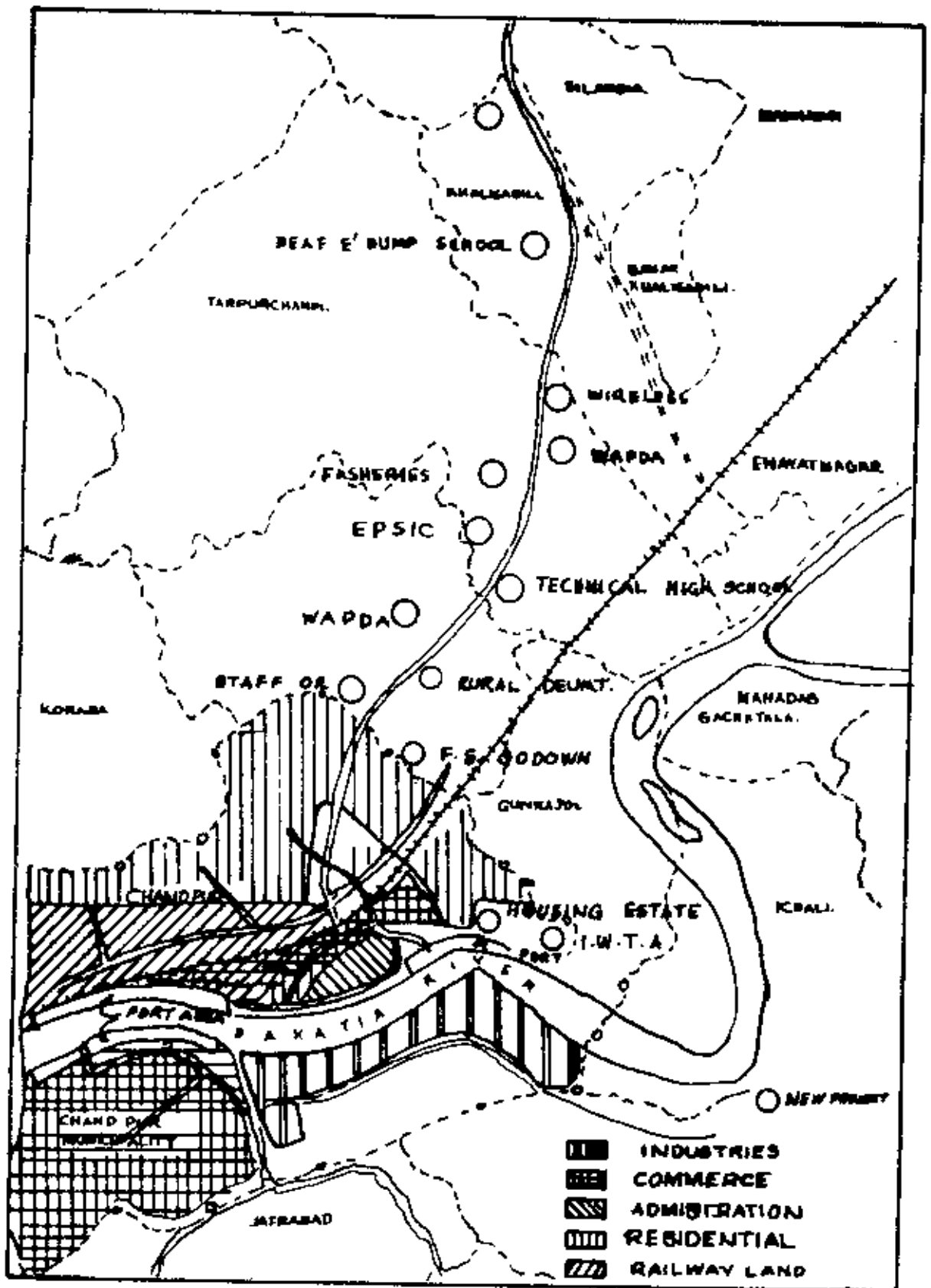
SCALE: 1" = 1 MILE



Findings

- (1) About twenty to forty percent of urban space is used for residential purposes and the density of housing in some town, like Rajshahi, is much higher in comparison to other towns.
- (2) Some amount of agricultural land exists within urban space in all towns. Though the main difference from rural to urban living is the non-agricultural occupation, interesting enough, mixed profession and living are quite common in our urban scene.
- (3) Around ten percent of total space is left open in the form of park, vacant or fallow land resulting a great misuse of scarce urban space. A good park or any other planned recreational space is rare available.
- (4) A small Educational zone constitutes a negligible percentage of total land use, except in University towns. This may be taken as one of the criteria to justify the minimum opportunity provided for education in our country.
- (5) Except a few industrial-based cities like Dacca, Narayanganj, Khulna and Chittagong, industrial establishment in other average towns is poor, and automatically enjoy smaller space.
- (6) Most of the town have the danger to be washed by flood and so there is a need for embankment to protect the ravages.
- (7) Higher the agglomeration, higher is the percentage of road space- During the last decade, urban roads experienced a development both in width and surface quality.

CHANDPUR LAND USE MAP



Characteristics of Buildings

Two hundred years of British colonialism was enormously effective in strangulating the glorious Mughal culture of this subcontinent. The highly developed indigenous building arts of the latter Mughals was replaced by the proto-typed buildings of the British constructed by surveyor and engineers of lower echelons⁷. So, our present buildings characteristics, as I have said before, are the mixture of indigenous and western art.

Indigenous Pattern : The old towns of distinctively Bengali character exhibit a number of common features, like, the ground is completely covered by structures, except for the street, the interior courts of some dwellings and incidental open spaces around public buildings.

One or two storied houses are predominant extending in a row along a street or an alley, though high-rise buildings of three to four-storied are also occasionally found along the main streets. They consist of two to four congested rooms with a minimum scope for light and air. From the building material point of view. They consist of 'Kutcha' or construction of mud wall and thatch roof, and 'pucca' of brick-cement mado. The former type is progressively decreasing with increasing city sizes. Building materials vary from region to region. However, in general, bricks, cement, corrugated iron and timber are widely used. Mud houses are normally found in the peripheries. Religious places with structures are inevitably found within a short distance.

7. Zahidul Haasan : Architecture in East Pakistan after 1947
Third Seminar on Architecture. Op.cit. P-92.

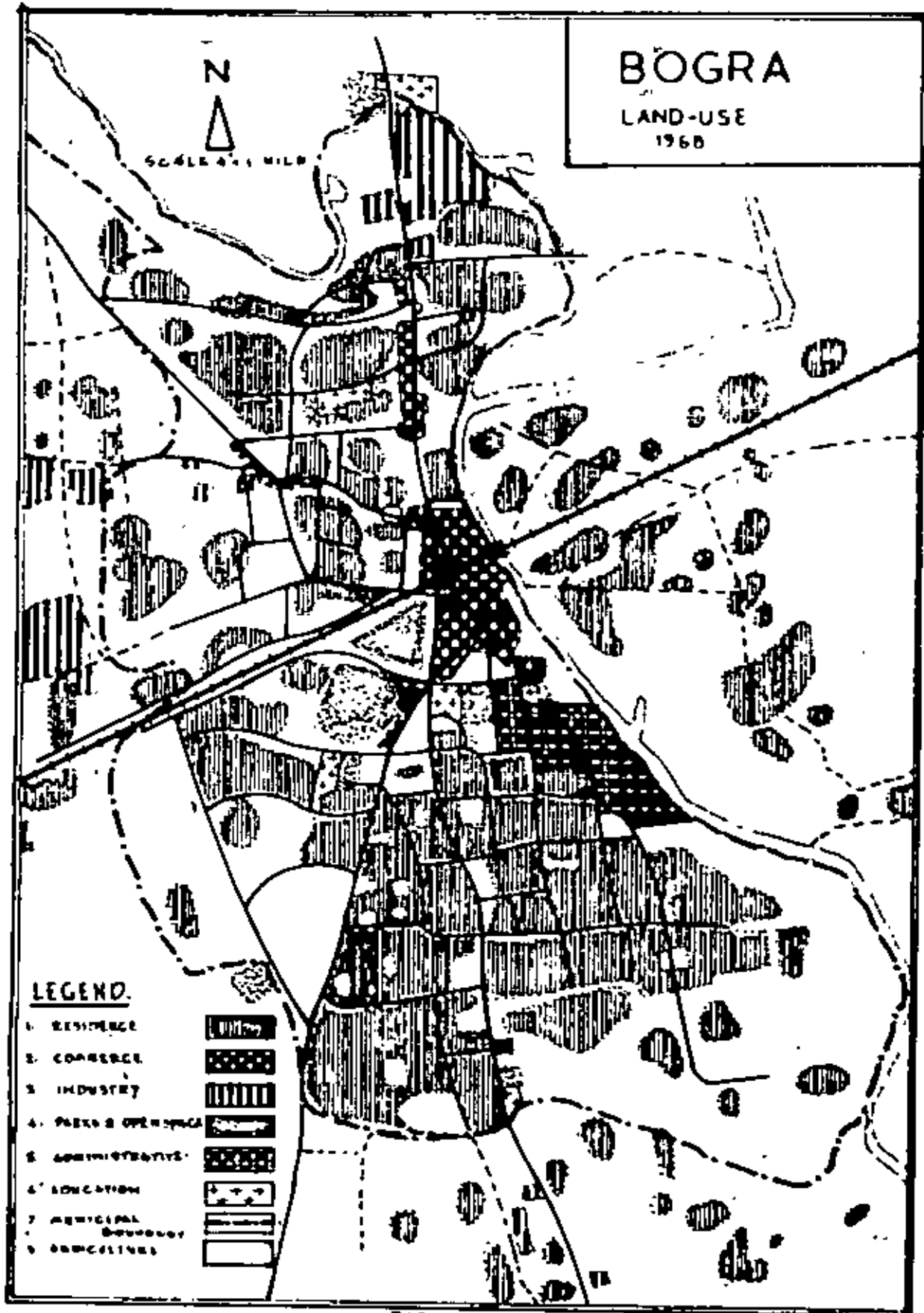


FIG. 5.

Western pattern : In contrast to the patterns of indigenous urban settlements, the British made civil lines, military cantonments and railways colonies are found more systematic with a definite function areas. A new type of building developed known as the 'Bungalow' which with its usual north south orientation and provision of deep over hangs was appropriate for the climatic conditions. Structures were almost pucca and many of them stand in the side of large fenced compounds with much space devoted to trees and grass-land escaped in formal garden. There were, ofcourse, row-houses for servants and lower-class employers.

With the socio-economic development of the country, some new urban elements like rows of living quarters, newly built spacious hospital, officers' club, and very recently transmission tower (in five cities) are found dispersely.

Poverty stricken urban scene gives another important look of slums and dilapidated living. This insanitary and degraded living in squatters and bushes are appealing. Int, lowest paid workers and unemployed millions crowd into a few square feet on space, glad for mere shelter at the different pockets of the town. The condition is more prominent in some jute -mill towns on the bank of rivers⁸.

8. S.M.H.Necavi : "Traffic of Chandpur⁸ Port" (The oriental Geographer, Dacca July, 1968).

श्री. वि. शर्मा

SUMMARY

One of the most striking features of contemporary civilization is, no doubt, the phenomenon of growing urbanisation. The work is devoted to analyse the pattern of urbanisation in Bangla Desh, particularly from 1951 to 1971 (before March 25, 1971). It is an enquiry into the nature of urban settlement, their structure and characteristics of land-uses with an introduction to physical planning and other socio-economic problems prevailing in the country.

The process of urbanisation which in otherwards, a new look toward life and living, is more rapid and of greater significance than ever before. Urbanisation is defined precisely, as a process through which an increasing proportion of people live together in a concentrated locally having continuous collection of houses and enjoy in common benefits of certain public utilities.

Urban population is spread very unevenly over the world surface, but the regions of extreme urbanisation are few and restricted. It is a varying mixture of economic and social forces which decides the pattern of urbanisation in the world to-day. A century and a half ago only about 2.4% of the world's population lived in town, in 1850, it raised 4.3% in 1900 it was 9.2% and 1950, 20.9%. It is estimated that in A.D. 2,000 it will be 45%. At present more than 35% of the world people living in urban environment and in 2050, it is expected to be 90%. Urbanisation is nowhere in its peak. The rate of urbanisation is decreasing a little in the order industrial countries but hardly enough to disturb the general upward trend.

CHAPTER - SIX

S U M M A R Y

Urbanisation in real sense in Bangla Desh started with the dawn of this century. Municipalities which nurtured training in self-Government formed the nucleus of politico-economic-administrative units. Facilities for education, scope for business and commercial activities and extension of public utilities came with the administrative set up to cater the increasing needs which in turn, attracted the people to those centres. Gradually the system of transport and communication developed as flourishing trade and commerce needed and justified it. In this way a built in force was created and the growth of towns sustained somehow by themselves.

Tables 3.2, 3.3, 3.4, 3.5, and 3.8 (page 34 and 35) provide a historical sketch of the development of urbanisation of Bangla Desh. The increase in the proportion of the urban population is more or less steady since 1901 except in 1911 when the cities were depopulated due^{to} plague epidemic and in the decade 1941-51. This period saw the second world war and the colossal famine of Bengal. These two incidents are turning point in the history of urbanisation in Bangla Desh. In early 40_s people left cities for the fear of bombing and other war ravages, but soon the famine brought thousands and millions of hungry villagers to the cities. Rural economy being completely shattered, people left villages with a hope of job opportunities and better prospect for life in urban areas. There also they met the most unfortunate fate and surrendered themselves to death. In the decade 1941-51, though the absolute population marked a negative growth by 65,000, urban growth trend recorded positive.

After partition, growth of towns both in number and magnitude is evident from the above tables. The growth of towns shows the trend that while some centres have steady rate of increase in population during each successive decade, other have widely fluctuating rates, but the number of towns belonging to a particular size-class is more or less uniform, except the size-class 10,000-20,000 during the present decade. Interesting enough to note that greater percentage of urban population clustered in a few bigger cities, and this tendency of agglomeration is steadily progressive.

Population of as many as eleven urban centres increased at rates higher than normal. This includes four cities of the country—Dacca, Nazyanganj, Khulna and Chittagong with a rate of growth around five, four, three and two respectively.

The other remaining urban centres grew at an usual rate around 100-200 p.c. over the two decades with a few exception like Iewardi, Lalmonirhat, Saidpur, the three Railway colony towns and Daulatpur, an industrial centre made a remarkable progress in positive direction while Barisal went to a negative direction and few other towns suffered more or less stagnancy in the process of development.

Another important fact that reveals from the study, is a good number of emerging urban centres in the country. These new towns numbering about 19 (nineteen), namely, Chhatak, Shorashal, Joydevpur, Tongi, Ashugonj, Pachagor, Jamalgonj, S. Paleshbari, Pakshy, Bhareware, Gaurnadi, Sarupkhati, Dewanganj, Mirzapur, Sarda, Akheura, Barguna, Daudkandi, and Lakshar, with a population range of between 3,000 to 12,000 emerge largely because of economic development mounted there during the last decade.

The distribution of urban centres in Bangla Desh is not uniform.

The total four cities of the country locate in the eastern part and two of them Dacca and Narayanganj are within a range of 12 miles. There is no city like urban-settlement in rest of the areas, which shows the deficiency in planning and resource allocation process to minimize development pattern by creating new growth poles in the northern region. Ofcourse, in recent years, Rajshahi is gaining much importance as a seat of higher education and administrative head quarters.

Considering the size of the country and its population, the number of towns and particularly small towns are rather few. This is because the people of the country do not generally live the town life. Limited means of communication, main dependence on agrarian resources and meagre development of modern industry are the main reasons for less urbanisation in the country.

In appearance most of the towns have some pattern of development along the arterial roads in an agricultural surrounding. The streets are narrow and single; their pattern emerge out of natural growth and not of conscious design. The road net in newly developed city-sites gives a fair account with their rectilinear or gridiron pattern. They are relatively wider and provide side-walks.

With a few exception, the most of the towns are shabby, unclean and dull. In most cases the people are congregated in ramshackle structures. Sanitation is poor, land-use pattern is poorer and modern amenities available are below all the standard. Government offices, some educational institutions and prominent businessmen only are

lugged in better structures.

Most of the towns are again located near rivers for facility of transport and trade. Industrial activity is found in few larger towns and their surroundings. Building characteristics are the mixture of indigenous and western art. Slums and dilapidated living bears the impression of poverty stricken economy of the country.

However, 'the urbanisation gives a new look toward life' the statement is justified from the following experience of our social-dynamics : (i) male dominance and undue superiority in the family is declining, (ii) dress and consumption pattern is changing, (iii) early marriage is no longer predominant and polygamy rarely found, but courtship is getting more understandable, (iv) Love for single family and tendency to reduce its size are more common; reduce its size are more common; and finally (v) increasing employment of women folk and female education are getting importance.

The migration of thousands of rural folk to cities in an agro-based economy is a sort of revolution to the life of humanity and it is the problem necessarily social, economic and political, needs to be solved more carefully and most honestly.

B I B L I O G R A P H Y

BOOKS

- Ahmed, Hafis : An Economic Geography of East Pakistan (Sec. Edn. London) Oxford Univ. Press, 1968)
- Anderson, Neils. The Urban Community : A World Perspective (New York : Holt, Rinehart and Winston, Inc.,1959).
- Bauchamp, J. British Imperialism in India (London, 1935).
- Begal, E.E. Urban Sociology, (McGraw-Hill Co. London, 1955)
- Benjamin, H.M. Urban Geography (London, 1953)
- Chapin, F.Stuart, Jr. Urban Land Use Planning (Urbana, U.S.A., University of Illinois Press 1965).
- Dewett, K.K. : Modern Economic Theory, (New Delhi, 1963)
- Erickson, E.Gordon. Urban Behaviour, (New York: The Macmillan Company, 1954)
- Ellefsen, R.A.: City-Hinterland Relationships in India (India's Urban Future, Ed. Roy Turner, Calif. Univ.Berkeley,1962)
- Friedmann, John : Economics of Regional Planning, MIT Press, 1962, U.S.A.
- Gallion, Arthur B. The Urban Pattern, City Planning and Design (Princeton, New Jersey : O. Van Nostrand Company, Inc.1959)
- Gibbard, Frederick. Town Design, (London: The Architectural Press,)
- Gibbs, Jack P. Urban Research Methods, (New Jersey, U.S.A. O.Van Nostrand Company, Inc.)
- Higgins, B. Economic Development (London, 1968)
- Howard, Ebenezer : Garden Cities of Tomorrow (London; Faber and Faber Ltd.1946).
- Jones, E. : Towns and cities (London, 1966)

- Karim, A.K.Mezumil : Changing Society in India and Pakistan, (Dacca, 1961)
- Keeble, Lewis. Principles and Practice of Town and Country Planning ,
(London : The Estate Gazette Limited, 1964).
- Majumdar, R.C. History of Bengal Vol.1 (Dacca, 1943).
- Mumford, Lewis ; The City in History : Its Origins, Its Transformations
and Its Prospects. (London: Seeker and Warburg, 1961).
- Osborn, Frederick J. and Arnold Whittick: The New Towns, (New York :
McGraw-Hill Book Company, 1963).
- R.D.Gadgil : The Industrial Evolution of India in Recent Times
(Gokhale Institute of Politics and Economics, Poona, 1945).
- Stataly, E. The Future of Urban Development (London) 1962}
- Tangri, S. Urbanisation, Political Stability and Economic Growth
(India's Urban Future, by Roy Turner, Univ. of Calif,
Burkeley, 1961).
- Wingo, Jr. London: Cities and Space, (Baltimore, U.S.A. : The Johns Hopkins Press).

MONOGRAPHS, ARTICLES, PERIODICALS AND PUBLIC DOCUMENTS

- Ali, M.M. : University Area Planning, Third Seminar on Architecture
(Dacca, Pakistan Council, 1968)
- Ahmed, A.M. : Architecture in E.P. upto 1947
Third Seminar on Architecture (Dacca, Pakistan Council, 1968)
- Bose, A.M. : Economic Development of Calcutta Metropolitan District
Indian Journal of Regional Science, Vol.1 no.1, Kharagpur.
- Choudhury, A.R. : Road Development in East Pakistan : Past and Present
(Pub. from R & M Deptt. Govt. of East Pakistan, 1968).
- Davis, K. : The Urbanisation of Human Population
CITIES, (Scientific America, Vol. 213, No. 3, New-York,
1965.
- EPWAPDA : Master Plan, Vol. 1. (IE Co. California, 1965).
- Government of Pakistan: The Fourth Five Year Plan, (Islamabad, 1970).
- Hessan Z. : Architecture in East Pakistan after 1947
3rd Seminar on Architecture, Pakistan Council, Dacca, 1968
- Hussain, A.F.A. : Urbanisation and Urban Development in East Pakistan
(Problems of Urbanisation in Pakistan, Karachi,
NIPA, 1967).
- Khan, F.A. : New Archaeological Discoveries in East Pakistan(Dacca, 1955).
- Malik A.M. : Hundred Years of Pakistan Railway (1862-1962), Karachi, 1962.
- Messenger, Govt. Publication: Census of Pakistan, 1961, Vol. 2, Karachi.
- Naqvi, S.H.H. : Traffic of Chandpur Town, Oriental Geographer, July, 1968,
Dacca.
- Patel, A.P. : The Urban Centres of East Pakistan (The Oriental Geographer,
July, 1970, Dacca)

- Robinson, I.M. : A comprehensive Regional Physical Planning :
 A sound Pattern of future Urban Growth (Problems
 of Urbanisation in Pakistan, Karachi, NIPA, 1967).
- Rowdin, B.L. : Urban Planning In Developing Countries (U.N.Monograph)
 1965.
- Rahman, S.M.F. : Economic Reconstruction of Bangla Desh (Dainik Bangla,
 Feb. 5, 1972).
- Sjoberg, G. : Origin and Evolution of Cities
 (Cities, Scientific America, Vol. 213,
 No. 3, New York, 1965).
- Urban Development Directorate, Dacca: Physical Planning Progress, Dacca, 1968.
- Zaman, H.A. Population Trend and Urbanisation in East Pakistan.
 (Problems of Urbanisation in Pakistan, Karachi,
 NIPA, 1967).



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 C. 2.