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A STUDY OF THE PROBLEMS OF
URBAN DEVELOPMENT AT THE
PERIPHERAL AREAS OF DHAKA CITY:
A CASE STUDY OF RAMPURA

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THESIS ACCEPTANCE FORM

A STUDY OF THE PROBLEMS OF URBAN DEVELOPMENT AT THE
PERIPHERAL AREAS OF DHAKA CITY

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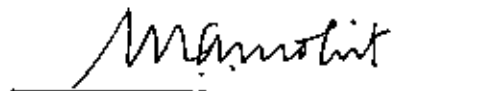
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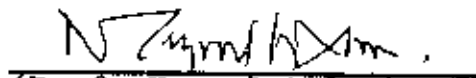
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CHAPTER 1
INTRODUCTION

The intrinsic concern of this rapid urbanization and concentration of population in Dhaka is the problems associated with spatial urban expansion. Although the concentration of population in the inner cities are increasing the peripheral areas are also continuously transforming from rural agricultural use to urban use to accommodate the increased urban dwellers.

Indeed the problems is not the shortage of land in the periphery rather the haphazard process of conversion of peripheral land is becoming an increasingly concern for the urban planners. These unplanned growth creates problems such as inadequate access, lack of infrastructure network, absence of social facilities and unhealthy environment. Due

to lack of planning and administrative control the areas thus developed suffer from the lack of adequate infrastructure and adequate community facility.

In this situation of rapid urbanization planned land development can ensure to regulate the growth. The main structuring elements of settlement can be established on the ground in advance of urbanization, particularly access roads and utility rights of way to open up areas for further development. The four main trunk arterials i.e. road, water, electricity, drainage, provided in advance of any settlement will guide the development in a particular direction, and as such will help the city to grow in a planned manner.

1.2 Rationale of the Study

The level of urbanization has been rising steadily over the past years in Bangladesh, because of the natural growth of population in urban areas and the migration of people from rural to urban areas. Concentration of population in few larger cities especially in the capital city has resulted into over-crowding, growth of slums, lack of residential accommodation etc. The continued over-crowding of already over-crowded metropolitan area of Dhaka has thus caused rapid deterioration of urban environment. In this situation of rapid urbanization Dhaka has experienced spontaneous periurban growth on surprisingly large sites and mostly outside the legal framework.

Peripheral areas of Dhaka city are characterised by rapid change in their landuse from rural agricultural to urban residential and mixed landuse. These areas are growing on its own natural way without any planning which may be a great problem for the future. Most of the people live below the poverty line barely able to satisfy the minimum nutritional requirements. The majority of them live in very low standard rental and squatter accommodation. The basic civic amenities like electricity, water supply, conservancy, sanitation, health services, primary education, housing and public transportation services could not be provided to the vast majority of people of these areas. Large scale unemployment and under-employment, poor living condition in the slums, abuse of child labour, lack of recreational facilities are creating social problems like juvenile delinquencies and rising wave of crimes in these areas.

To make the peripheral areas a livable community the approach to planning has to be changed. From previous experience it is clear that the traditional or conventional methods of planning is not sufficient to keep pace with the growth of Dhaka especially to solve the problems of peripheral areas. The proposed study will try to evaluate the existing planning deficiencies and to find alternative ways, outside conventional approach to accommodate peripheral growth in a planned environment.

1.3 Objectives of the Study

The entire process and problems of urban development in the urban peripheral areas of Dhaka is very dynamic and rather complex. It is neither the scope nor the intent of the present study to venture into all the aspects. Thus it has narrowed down to a more restricted area of choice, and the objectives could be outlined as follows:

- ✓ 1) To study the peripheral growth of Dhaka city in a few selected areas;
- ✓ 2) To study the problems associated with planned development at the peripheral areas;
- ✓ 3) To evaluate the existing planning deficiencies to accommodate peripheral growth in a planned environment;
- ✓ 4) To find alternative ways outside the conventional approach to accommodate peripheral growth in a planned environment.

1.4 The Study Area

The study was conducted in the eastern peripheral areas of Dhaka city where there has been a dramatic change in land use in the recent past. The eastern urban peripheral areas of Dhaka stretches from Jatrabari, the extreme south east corner of the city to Badda and beyond and still stretching as the city is growing linearly towards north. Though there is no sharp, clear boundary, but the whole eastern urban peripheral areas of Dhaka could be measured to approximately 4,480 acres.

After a reconnaissance survey of the above major areas in the eastern urban periphery Rampura was selected. The reason for selecting Rampura as the study area is its dramatic changes in the landuse within a very short period of time among all the eastern urban peripheral areas of Dhaka. Due to the close proximity to the city centre a large number of people reside here (Figure 1.1). The potential for land development suitability (Figure 1.2) is indentified in the report of Integrated Urban Development by Shankland Cox and Partners and also the importance of future expansion of Dhaka towards the east is shown in Figure 1.3 (DMAIUDP Report 1981).

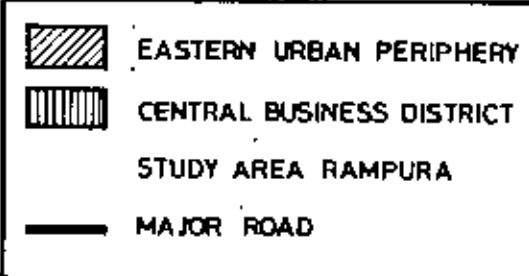
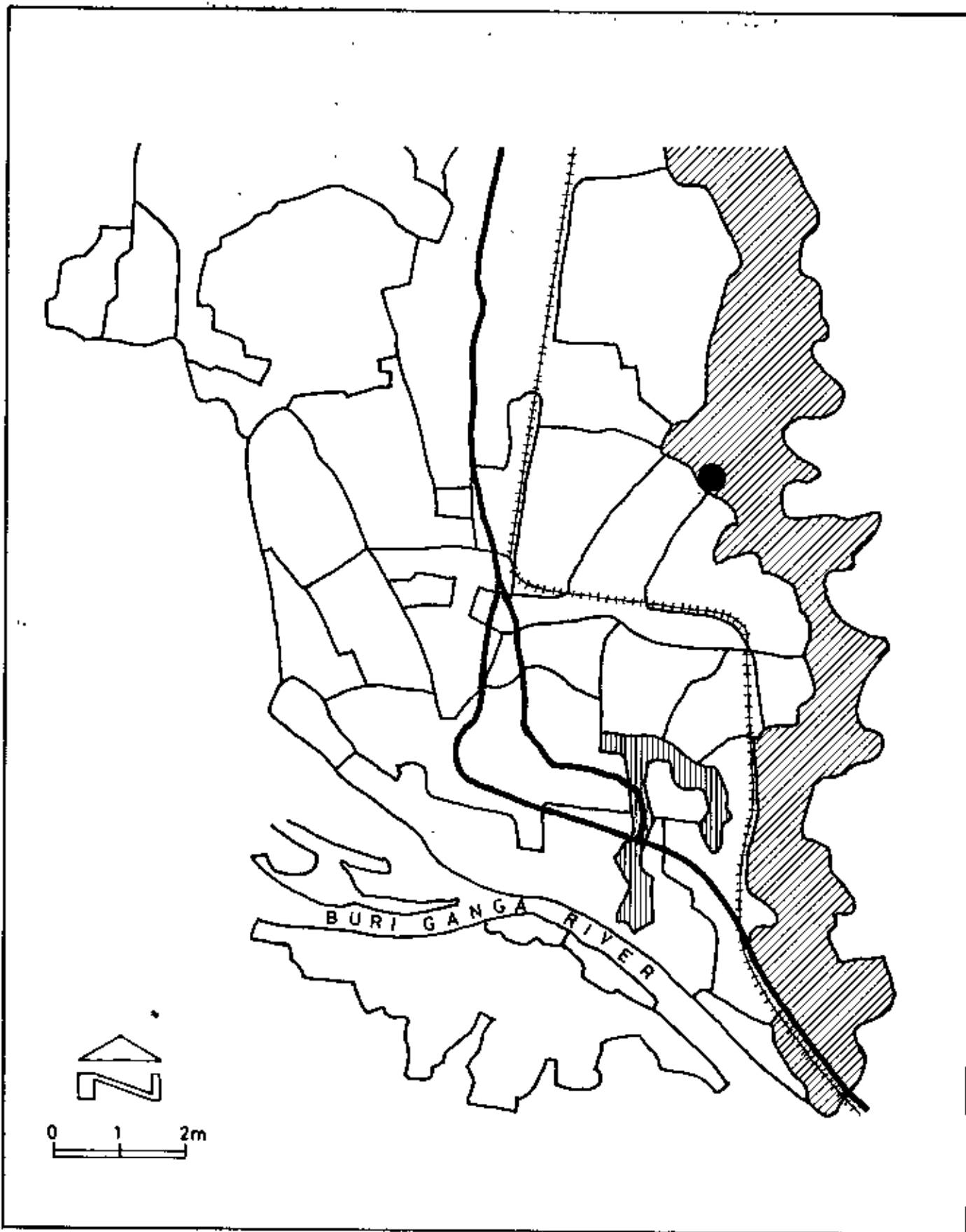
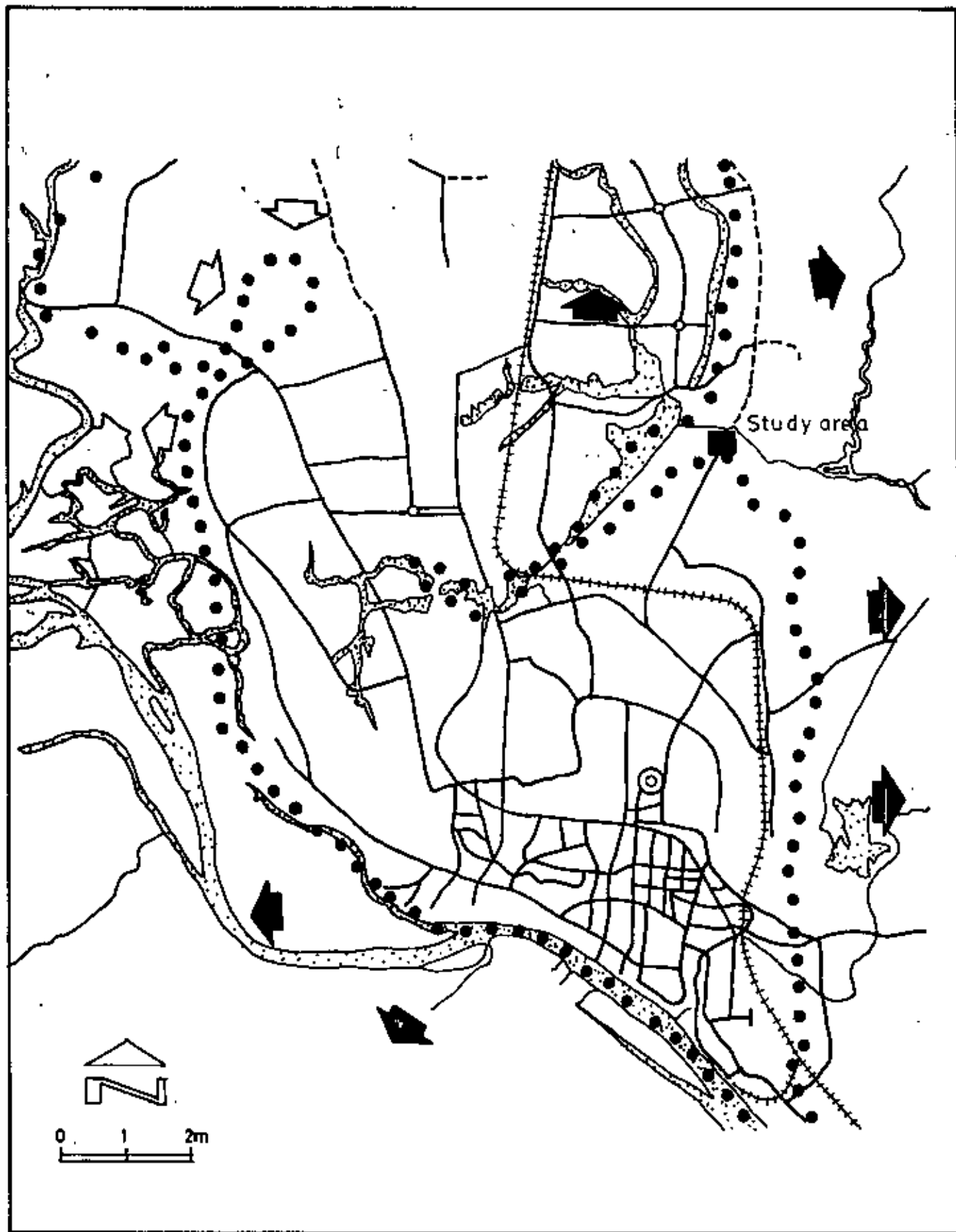
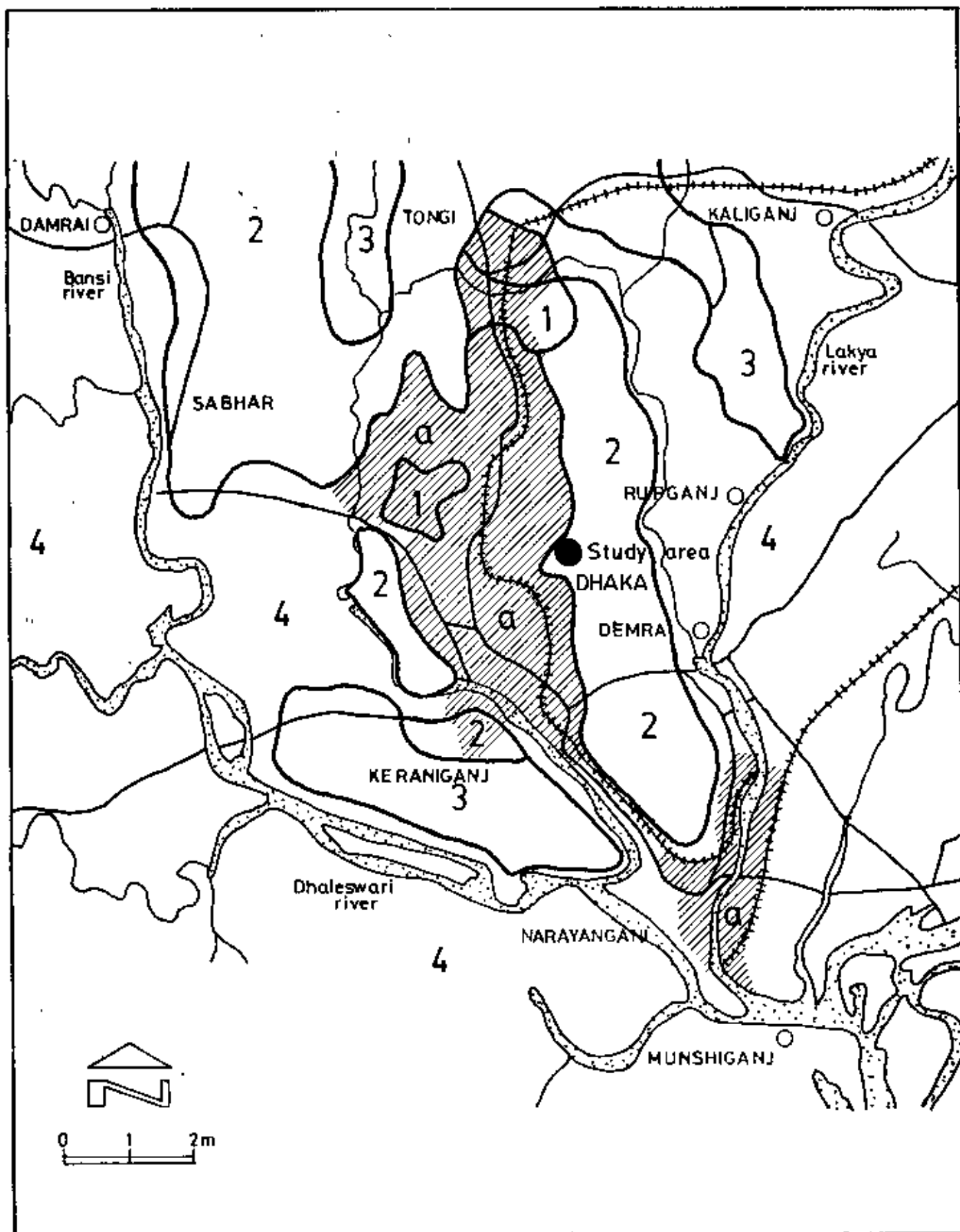


FIG.11 CLOSE PROXIMITY OF EASTERN FRINGE TO CENTRAL BUSINESS DISTRICT
 SOURCE: DMAIUDP FINAL REPORT 1981



- ● SEASONAL FLOOD PLAIN LIMIT
- - - UNPLANNED EXPANSION
- ▭ PLANNED EXPANSION

FIG.12 EXPANSION OF DHAKA CITY
SOURCE : DMAIUDP FINAL REPORT 1981





EXISTING URBAN AREA
CATEGORY 1 HIGH POTENTIAL FOR URBAN DEVELOPMENT
CATEGORY 2 POTENTIAL FOR URBAN DEVELOPMENT
CATEGORY 3 LOW POTENTIAL FOR URBAN DEVELOPMENT
CATEGORY 4 NO POTENTIAL FOR URBAN DEVELOPMENT

FIG.13 LAND SUITABILITY FOR URBAN DEVELOPMENT
SOURCE:DMAIUDP FINAL REPORT 1981

1.5 Methodology

To fulfill the above objectives a number of research techniques were used in the collection of data.

1.5.1 Data Collection from Primary Sources

(1) Physical and Landuse Survey:

A detailed landuse survey was conducted on a plot to plot basis because it was necessary to indentify and study each plot separately. Cadastral survey map on the scale of 16 inches to a mile were used for this purpose. Each plot was identified and the landuse produced on the basis of the survey.

(2) Socio-economic Survey:

Questionnaires (Appendix) were used as a major technique for the collection of primary data. Questions for the survey were set in a manner so as to extract informations relevant to the purpose of the study. It was mainly designed to find out the population composition in terms of size of households, size and ownership of the plot along with its characteristics, characteristics of the residential structures, existing municipal facilities, and the perception, awareness and attitude of the respondents towards the community. Sample uniform Random sampling was followed in the study evenly eight house was taken as a sample household.

The survey team for the collection of primary data was comprised of people who were familier with the area and its people. Also the team was fully aware of the

content of the questionnaire as well as the purpose and objectives of the study. The detail socio-economic characteristics of these homeowners will be discussed in the later chapter. The data obtained through questionnaire survey were processed later on.

(3) Observation:

An extensive observation of the study area was also done mainly to update the available map of the study area.

(4) Structured Interviews:

The structured interviews were mainly conducted with the Chief Town Planner of Rajuk, one official of DMC, and some influential persons from the study area. Besides these persons many others were consulted whenever it was necessary. All the interviews were very informal and they were conducted mainly to discover various groups perceptions and their decent activities which were relevant to study area. Though, during each interview, a set of points were predetermined, the respondents were allowed to deviate whenever necessary to express their views on aspects or incidentals which they considered relevant to the study area.

1.5.2 Data Collection from Secondary Sources

Secondary data from publications and reports were gathered.

1.6 Limitation of the Study

The study has been done within a limited time and with resources constraint. Apart from this, very little census data on eastern urban peripheral areas of Dhaka were available. The private studies and publication such as housing, transportation and utilities on urban peripheral areas of Dhaka as a whole, were also absent. As a result the information relevant for this present research were mainly collected through a primary survey, observations, interviews, and finally the author's judgement and experience.

CHAPTER 2
AN OVERVIEW OF THE GROWTH
OF DHAKA CITY

Chapter - 2

AN OVERVIEW OF THE GROWTH OF DHAKA CITY

2.1 Growth of Dhaka City

The spectacular rates of urbanization and the dramatic deterioration of the living conditions of the masses in the Third World urban areas have now become an international concern. There is also a recognition that the urbanization trend is irreversible and more people will be living in the urban areas.

Urbanization in Bangladesh, like in a number of South and South-East Asian countries, differs from the western countries in many respects, such as:

- (1) In the historical past a number of urban centres flourished in Bangladesh as royal towns, some with religious and commercial importance which later degenerates as a result of a number of geographic reasons;
- (2) Despite the existence of a number of important towns in the past, urbanization in Bangladesh is characterized mainly by a colonial background with an indigenous rural culture; and
- (3) Recent urbanization took place in an already densely populated area giving a very high concentration of population, particularly, in the larger urban centres.

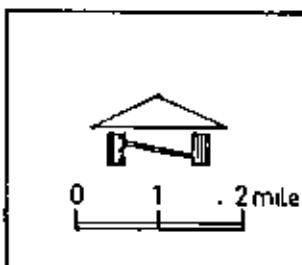
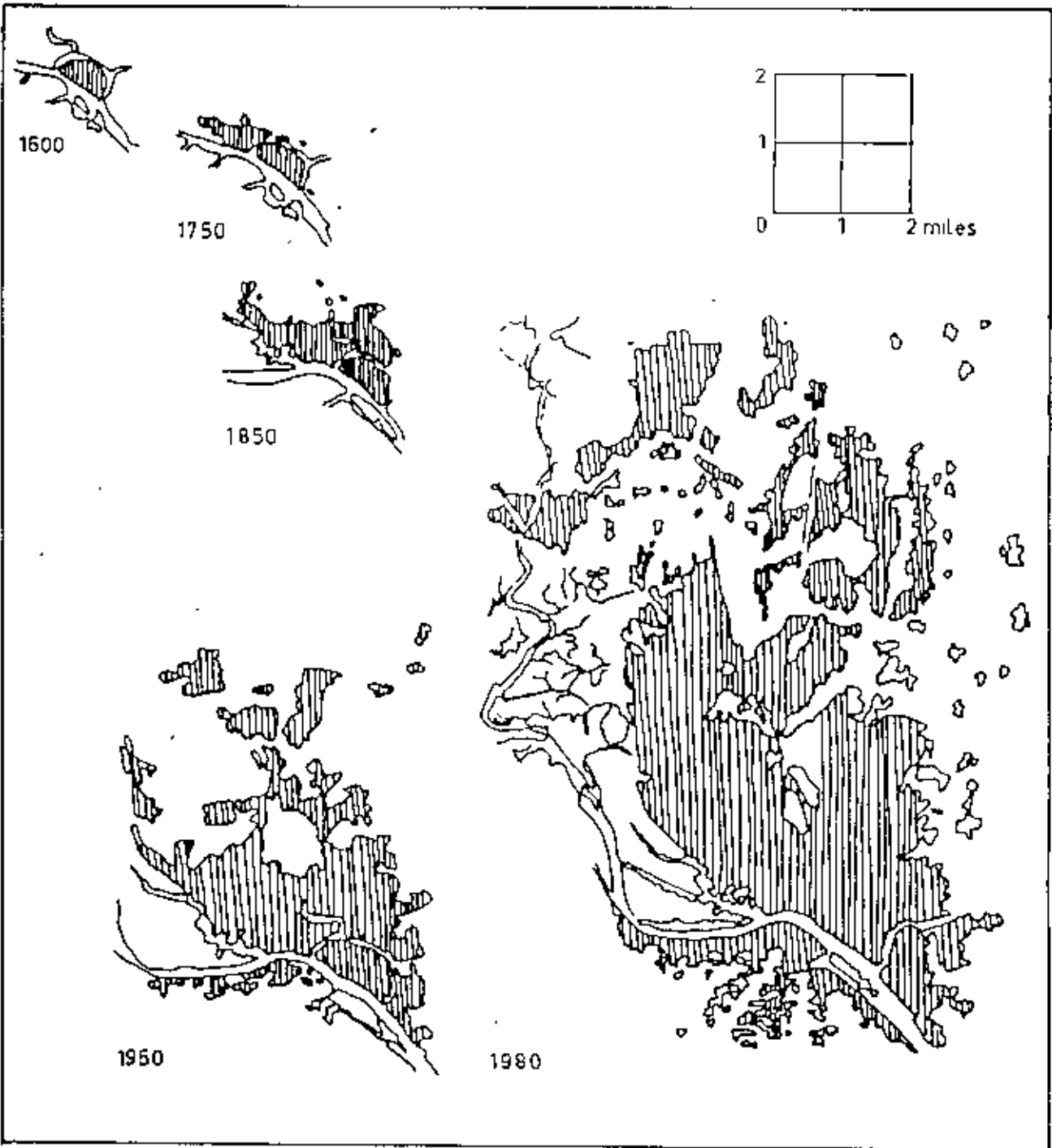


Fig 2.1 GROWTH OF DHAKA CITY
1600 - 1980

SOURCE : DMAIUDP FINAL REPORT 1981

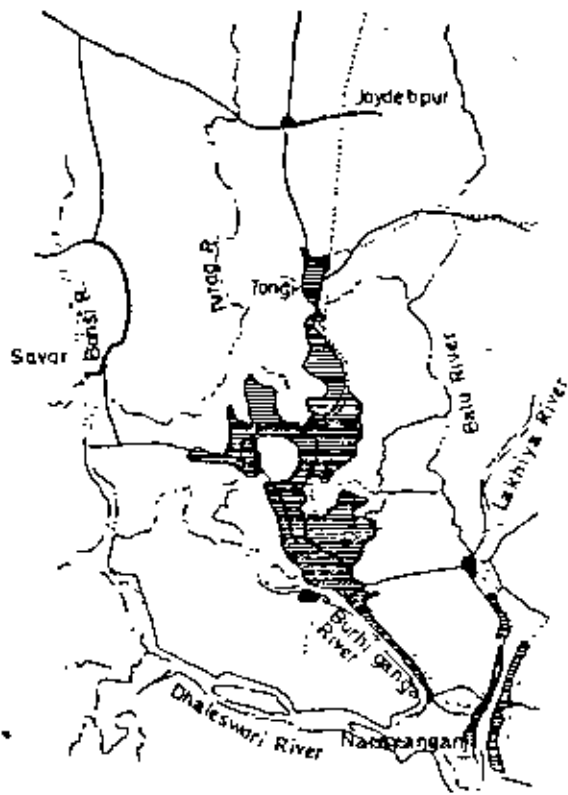
Despite the existence of number of flourishing towns in the long past, the development of urban centres and the process of urbanization in Bangladesh are recent phenomena. Even in the context of the developing countries, the level of urbanization in Bangladesh is low. However, during the recent past the rates of increase in urban population have been high.

Table 2.1: POPULATION AND AREA IN DHAKA (1700-1981)

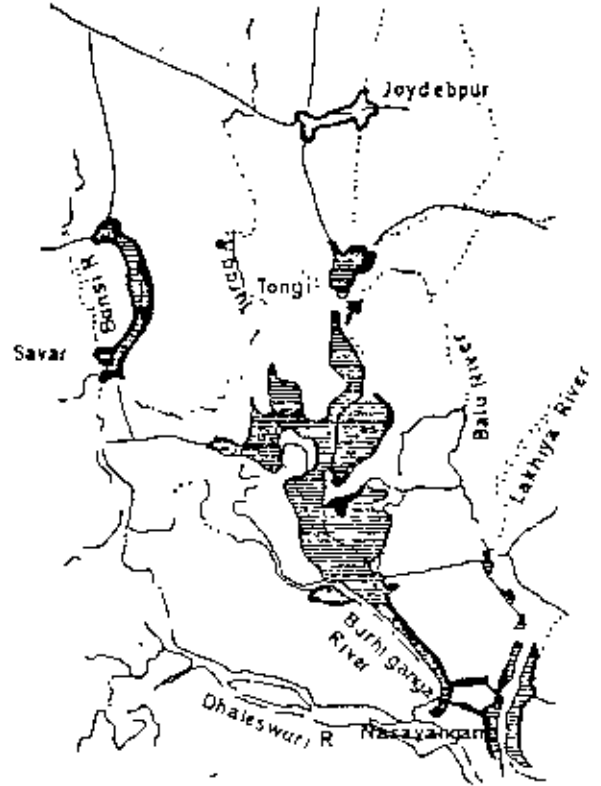
Year	Population	Area (in sq mile)
1700	900,000	4
1800	200,000	8
1867	51,636	8
1881	80,358	8
1901	104,385	10
1921	137,908	10
1951	338,762	28
1961	556,712	35
1974	1,679,572	40
1981	3,458,602	52
1990	5,760,000	-

Source: (1) Karim (1964)
 (2) Department of Statistics, Dhaka University, 1965
 (3) Centre for Urban Studies, Dhaka University, 1980
 (4) Population Census of Bangladesh, 1981

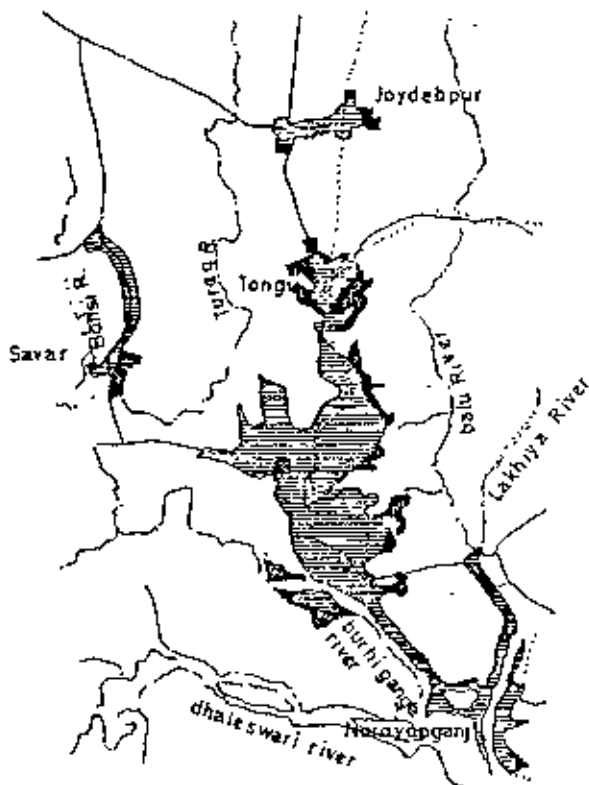
In 1951 for example, Dhaka accommodated a population of about 300,000 people. By 1960, the figure executed half a million and by 1970, the figure crossed the million mark. The present population is now estimated at 4.5 million and is expected to approach ten million by 2000. Figure 2.2 show the increase of population and area of Dhaka from 1980 to 2000 (Projected).



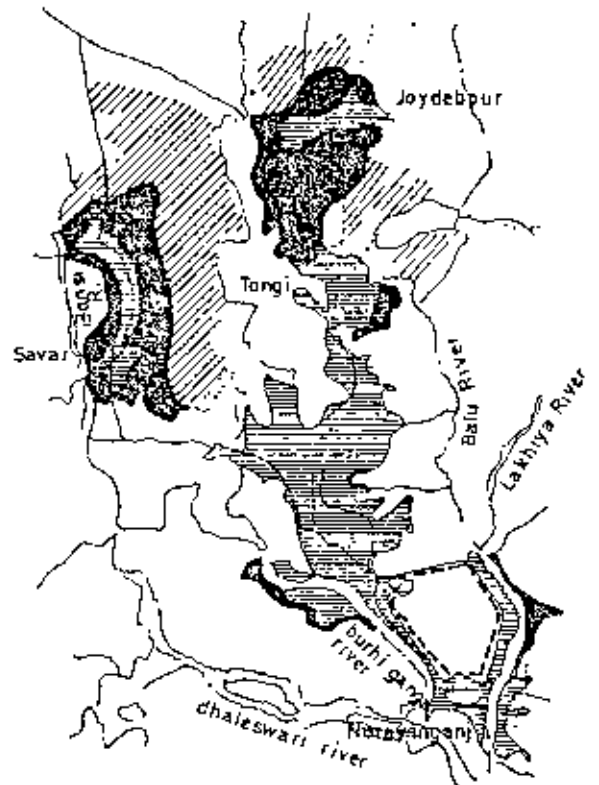
1980 Population - 3,375,000
 Approx Urban Area - 52 square miles



1985 Population - 4,545,000
 Approx Urban Area - 65 square miles.



1990 Population - 5,880,000
 Approx Urban Area - 75 square miles



2000+ Population - 9,040,000
 Approx Urban Area - 124 square miles





-  Urban Areas at start of each Phase
-  Additional Growth during each Phase
-  D.N.D. Optional Development Area
-  Opportunities for post 2000 Growth

FIG. 2.2 Projected Growth 1980 - 2000+.

SOURCE : DHAKA METROPOLITAN AREA
 Integrated Urban Development Project.

For much of its prosperity and flourishing, Dhaka city owes to the river Buriganga greatly as it owes to the rules of this region, who crowned the city as capital from time to time. The main source of Dhaka's prosperity and growth was social and economical activities in the region. At the height of its flourishing during the Moghol era, Dhaka city had a population of about 9 lakh. This spells of the rich heritage of the city in the past.

During long span of British colonial rule the city emerged as a key administrative and trading centre as well as a seat of learning, marked with occasional decline and prosperity. James Rennel reporting in 1865 estimated population of the city as 450,000 living in an area that was four miles along the river and two miles deep. In 1869 the size of population declined to only 51,636, the lowest ever in its history. During the same period the city encompassed an area of about 4.67 sq miles. The city expanded rapidly after the India-Pakistan separation in 1947. In a span of 24 years, since 1947, the city population grew by about 250%, while the growth in special terms was about 100%.

After liberation of the country in 1971 population showed exorbitant rise. From a small city in 1947 Dhaka has grown into a crowded metropolis of over 4 million people by 1987. It is estimated that by the year 2000 AD, the Dhaka city will have a population of about 1 crore, rendering it one of the top ranking cities of the World with respect to size of population.

This tremendous surge in the number of inhabitants could be absorbed either by severe intensification in the use of existing urban space and by a rapid expansion of the urbanized area. Both of these processes have already began

on the one hand, there are parts of older built up areas where 2000 persons or more crowded into a single area of land; on the other, the area wise Dhaka has also expanded appreciably. The urban sprawl is already spreading out from Dhaka to gobble up the DND agricultural belt and the nuclei of new urban settlements are forming in the Savar, Tongi and Joydevpur regions. To the south across the river an informal sector industrial town is being created. The majority 85 percent of the lower and the lower middle income households who want to stay near to the city centre for better job opportunities become active in the process of land and residential development. But the exorbitant price of high land has compelled these groups of private households to look for land of somewhat marginal quality. Thus the conversion of the rural land to urban residential use has been taking place rather rapidly.

2.2 The Urban Administration and Management of Dhaka City

Presently some 30 disparate organisation under different ministries are responsible for planning and providing urban facilities and services in Dhaka. They formulate development plans and undertake short-term sectoral projects, usually site-specific, to implement the Government policies in individual sectors. The policy planning at the macro level is the responsibility of the Planning Commission. The physical sector planning within the Planning Commission is the particular responsibility of its Physical Infra-structural Division. Development of Dhaka in itself is not a singular responsibility of any particular ministry except that the physical planning is under the control of the Ministry of Works. The complex problems of managing the massive acceleration of urban growth, which at the sametime

improving the quality of urban services, have resulted in setting up a number of institutions in Metropolitan Dhaka for the management of the city. The creation and evolution of these agencies are discussed here in three broad phases.

2.2.1 British Period

Dhaka continued to grow unhindered from 1610 to 1717 under the Moghol rule. For the whole of this period excepting 1639 to 1659, Dhaka remained the capital of East Bengal and Assam. In 1639 the capital was removed from Dhaka to Rajmahal where it remained till 1659. Dhaka was designed and developed to control the trade and commerce and for collection of revenue from the region of Eastern Bengal. Unfortunately in 1716 capital of Bengal was shifted from Dhaka to Murshidabad. This gave a blow to Dhaka's further prosperity. But this could not destroy the economic potentiality of the city. In 1757, after the British conquest, the decline of Dhaka began in real sense.

In 1757, the British gained military control of Bengal and in 1765 took over the civil administration of the country. The rule of the company came to an end when the British crown took over the administration of the country in 1758. The trend of urbanization in the country reversed and dwindled during this period.

Except improvement of unhealthy and insanitary conditions of the city no comprehensive attempt was undertaken to develop Dhaka city in a planned way during the long span of British colonial period.

During colonial rule the environment of the town was very unhealthy and insanitary. This situation was aggravated by physical layout of the town and uncivic habits of the citizens.

Between 1801 to 1840 many densely populated locations were largely abandoned. As people decented the town number of houses were unoccupied and decaying, becoming health hazards. As the population declined the main parts of the city grew over crowded as people moved from the sub-urbs to the inner parts with poverty and decay had come apathy and there was little indigenous leadership. No local institutions existed that could tackle the urban problems of Dhaka. The various "Panchayats" of the Muslims and Hindus were neither interested nor did they have any understanding of modern needs.

In 1836 the Government of India had ordered inquiries into the state of Municipal facilities in the towns and cities of lower provinces. In 1837 the Government of Bengal expressed its cautious willingness to ameliorate urban living conditions and passed a modified chaukidari Act (Act XV of 1837). Permutting a portion of the chaukidari tax to be devoted to the purpose of cleaning and repairing the towns in which the tax is levied. Originally chaukidari tax levied in Dhaka after the passing of Regulation XIII in 1813.

A new drive for improvement in the city began with the arrival of Magistrate Russel Morland Skimmer in 1840. He realised the need for a permanent institution to ensure sustained development of the city. He initiated to form first municipal committee in the city and took measures to raise funds for urban development. The municipal committee

formally came into being in August 1840 and soon it began formulating its own rules and procedures. The city was divided into five wards and the ward members were given responsibility to supervise conservation of roads, drains wells and tank, general cleanliness and encroachment upon public thoroughfares. The committee succeeded in repairing and paving most of the wards.

The committee also took initiative to clear up tanks and jungles and improve drainage. But the municipal committee could not move ahead long owing to fund crises. Though the committee did help ameliorate conditions in Dhaka it failed to solve some of city's major problems. One of those related to Muslim burial grounds. The committee's failure to solve the Muslim burial problem was matched by its general inability to obtain public co-operation in maintaining the civic welfare of the city. Without adequate resources, legal powers or the labour, the Municipal committee could do very little beyond keeping the main streets clean and carrying out a few essential works, Dhaka again degenerated into insanitariness.

The Bengal Act III of 1864 which led to the establishment of the Dhaka Municipality was a landmark in the city urban development. This Act not only created an institution for urban development but also empowered it for the first time, to impose taxes for financing improvement works. A Government notification also defined the area over which the Dhaka Municipality would exercise its jurisdiction. This area included the city proper and the few outlying sub-urbs like the Mahallas of Jaforabad, Sultanganj and Rayganj. The Municipality undertook a number of improvement works immediately after its inception. Many roads were repaired and widened. The two main roads of that time Nawabpur road

and Bazar Street, were renovated and re-metalled. Heavy mud streets and lanes were repaired and metalled and many narrow streets were widened. All these development works helped improve communication system of the city. Municipality also constructed new drains and cleaned clogged ones. The commission also considered the problem of the town sewage. The problems of providing the Muslim community of Dhaka with a proper burial ground was also dealt with. A special Act for improving the sanitary condition of the town of Dhaka Act VII of 1870, was accordingly passed, which, together with Act III of 1864, gave the Municipality a very wide range of fiscal financial and civic powers. Following the enactment of conservancy Act of 1870, Municipality made elaborate arrangements for town cleaning and sewerage removal.

In 1876 Dhaka Municipal took initiative to develop Wari area. But its efforts were without success. Then in 1885 the then Government itself started the residential area development work at Wari.

One of the successful improvement on Dhaka's urban life was marked by installation of modern water works near Lalbagh area, a product of public charity and municipal funding. In 1878 the water works opened with a capacity of 35,000 gallons a day. During British rule the history of urban development in Dhaka was one of mixed success. The problems of drainage could not be broken through. No effective solution could be worked out to clear the hopeless slums. Lack of financial resources remained as the most important constraint for municipality to improve urban development. From the end of 1914, the Government was contemplating about renewal programme for old Dhaka to give smooth access to the vehicles and pedestrians. The most noteworthy event of this

time was that in 1917 the famous British Town Planner Sir Patrick Geddes visited Dhaka and recommended for a detailed Master Plan for the city to develop it in a planned manner and his idea was materialised about 50 years later. The Bengal Municipal Act was enacted in 1932. This Act was an important progressive measure passed during this period by the provincial legislature consolidating the Act of 1884 and its subsequent amendments.

2.2.2 Pakistan Period

After partition of India in 1947, Dhaka became the capital of the then East Pakistan. At that time the city had to accommodate new administrative establishment and increasing population including income refugees from India. The Communication and Building (C&B) Department was the central body to initiate major infrastructural and development and building activities in the public sector and all planning functions were actually handled by this body. This department prepared the layout plan of Tejgaon Industrial Area in 1950 which ultimately was not implemented.

Under the pressure of population, the city began to expand haphazardly. The pressure was so great that a housing and settlement wing was established under the Public Works Department (PWD) to deal with the refugees rehabilitation and later was upgraded to Directorate (HSD) for lower and middle income housing for government employees. The Dhaka Municipality which was established in 1964, was controlling the urban areas until the establishment of Dhaka Improvement Trust (DIT) in 1956 for the planning and management of Dhaka.

In 1948, the East Bengal Government created the Planning Division to cover areas of architecture, communication building and irrigation. A sub-committee, prepared a physical plan of Dhaka city for its future growth. The plan was prepared in a period of twenty five days only. The plan covered areas, like major and secondary roads, railways, cottage and small scale industries, development of airport, rail station, office, open space, residential areas, administrative zones, offices, missions and residence of government officers. Total area planned was thirty square miles. This plan was implemented partially. The areas developed according to this plan are, Azimpur, Motijheel and Tejgaon. With the growing importance of Dhaka, the tempo of development in the city was getting faster at the beginning of fifties. The DIT came into being in 1956 with a view to create a new planning and development organisation for the city to gear up its planned development. It was the outcome of:

- (1) The East Bengal Building Construction Ordinance, 1951;
- (2) The East Bengal Building Construction Act, 1952; and
- (3) The Town Improvement Act, 1953.

The first ordinance and Act were designed as instruments to halt haphazard construction which was "Likely to interference with the planning of certain areas". They were not, however, planning laws. They merely gave power to the provincial government to approve building applications a power previously vested exclusively in the municipal bodies. The 1953 Act was copied verbatim from the 1911 Calcutta Improvement Act. It described the DIT as a development agency authorised to take over municipal and private property re-build or otherwise improve an area, as soon as possible, return property to the original owners. The trust

was given the power to prepare zone plans. The DIT was also authorised to review and veto building applications approved by a municipality a power related to its development role.

In its initial form the Town Improvement Act continued a tradition of government well entrenched in the sub-continent, the separation of development and maintenance functions. Once an improvement was complete the area was to be returned to the relevant municipality for permanent management, conceptually, the DIT was even setup as a temporary body. It was to complete all of its improvement scheme and then be dissolved, its assets and liabilities being taken over by appropriate municipal bodies.

After the DIT was constituted in 1956, however, it was though necessary to prepare master plan for Dhaka to guide development.

Consequently the Town Improvement Act was amended by the Town Improvement (Amendment) Ordinance, 1958. The amendment sought to turn the DIT into a management agency, having a master planning responsibility and control over building applications, in addition to its development rule. The 1958 amendment marked the first significant transfer of municipal functions to a statutory and improve for metropolitan authority. At the same time it recognized the presence of the DIT as an institution.

In 1959 DIT prepared a Master Plan for it's 320 sq miles including the city. The plan was approved by the government in 1960. According to Town Improvement Act, 1953, DIT undertook many city development projects that can be classified into nine categories, as follows:

- (1) Construction of Roads
- (2) Development of Industrial Estate
- (3) Development of Commercial Area
- (4) Construction of Shopping Area
- (5) Development of Housing
- (6) Development of Rehabilitation Zone
- (7) Creation of Recreation and Service Facilities
- (8) Construction and Sale of Flates
- (9) Construction of Staff Quarters

During 24 years after the partition of India, significant political changes took place in the country which also induced changes in socio-economic structure of the city. Population of the city almost tripled during this period. Commercial, administrative, social and political activities of the city increased which called for development of commercial establishments, offices, educational institutions, hospitals and above all residence. Till 1971 the city of Dhaka was stretched from Buriganga river in the south to Mirpur, Gulshan, Banani in the north; Mohammadpur, Rayer Bazar, Hazaribagh and Nawabganj in the west to Khilgaon, Kamalapur, Gopibagh, Jatrabari and Dholairpar in the east. However, comparative to old part of Dhaka density in new Dhaka was thin.

2.2.3 Bangladesh Period

After independence in 1971, Dhaka became capital of the country. This historical change in status of the city brought about dramatic change in the socio-economic and physical character of the city as well. Unprecedented population growth took place during the first decade after liberation. Rise in population was also marked by physical expansion of the city. The expansion trend of the city continues with the growth of population at continuous rate.

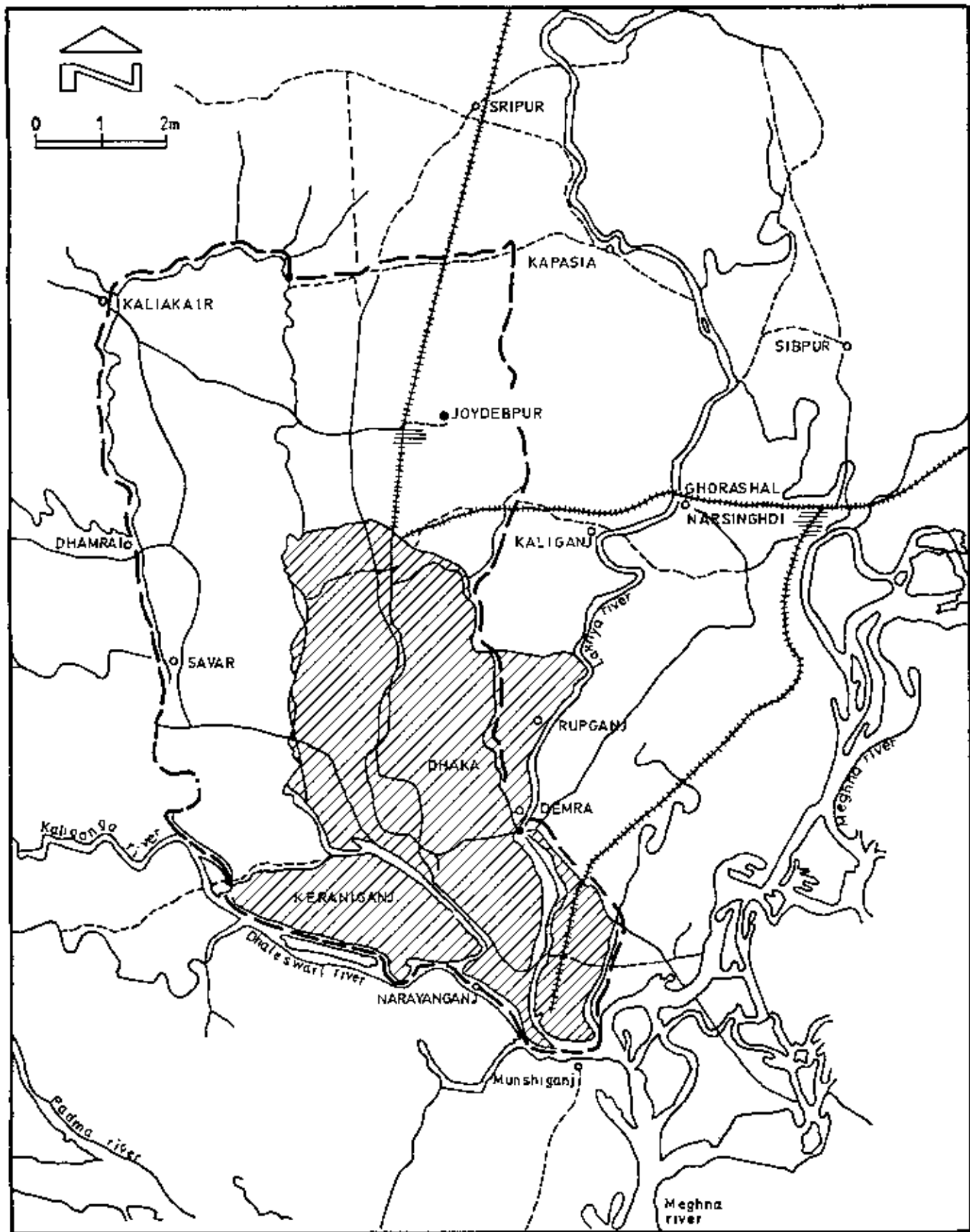
In east, Bashaboo, Manda, Mughdapara, Dhaniala, etc areas were developed. In the west, however, growth was slowed by existence of deep low lying lands beyond Mohammadpur and Rayer Bazar. In the south overspill took place indiscriminately in Keraniganj area, beyond the Buriganga river. In the north, expansion was blocked by deep low lying lands beyond Mirpur, Malibagh, Rampura, badda, etc areas started getting populations since mid seventies. But established another posh residential area at Baridhara and a diplomatic enclave was established the city with serious drainage congestion. Since suitable land in the city is disappearing fast, pressure on existing lands causing serious like in land prices and increase in population density. Presently, the institutional delivery and maintenance of the vital urban services and structures are the responsibility of some 20 public organisations, of these, the principal ones in the physical sector are:

- (1) Rajdhani Unnayan Katripakkha (Rajuk)
- (2) Dhaka Municipal Corporation (DMC)
- (3) Dhaka Water Supply & Sewerage Authority (WASA)
- (4) Department of Public Health Engineering (DPHE)
- (5) Bangladesh Power Development Board (BPDB)
- (6) Titas Gas Transmission & Distribution Co Ltd (TGTDL)
- (7) Bangladesh Telegraph and Telephone Board (T&T)

For all practical purposes, the DIT is the planning and land development authority for greater Dhaka. Since its inception, DIT's role as a planning-cum-development authority of the city has been under controversy. The dual responsibilities of administration and development were not clearly spelt out in its code of regulations. The planning sector has never been the same as the development section, which resulted in the section which has the main responsibility having to take a back seat in the organisational hierarchy on the other hand, DIT was not vested with the responsibility of a single planning authority in the city. Realizing the problem, the master planners of 1959 recommended that the city should be under one planning authority. The authority accepted the master plan but not this proposal.

In 1987 the name of DIT changed to Rajdhani Unnayan Katripakha (Rajuk), following the prototype of the Calcutta Madras and Jakarta Metropolitan Development Authorities, through the amendment in the Town Improvement Bill in the Parliament. The Board of Trustees, which had administered the DIT, has been abolished and the new authority has been given more 'direct' and executive power than it had previously. As an initial step, the metropolitan planning limit was extended in 1987 by extension of jurisdiction of the then DIT from 320 sq miles to 590 sq miles. This latest extension added 270 sq miles to Rajuk and covers most of Savar, Joydevpur, Keraniganj and Narayanganj in its fold for purpose of regulatory control.

All the other agencies are primarily service organisation, responsible for delivery of specific services to the city.





 RAJUK METROPOLITAN PLANNING AREA
 DIT MASTER PLAN (1959)

FIG. 2.3 METROPOLITAN PLANNING AREA

SOURCE : DMAIUDP FINAL REPORT 1981

The Dhaka Municipality became a municipal corporation through Government Order in 1978. In 1983 the Dhaka Municipal Corporation ordinance was approved by the President. This ordinance which is essentially a copy of the 1977 Pourashava Ordinance spells out the responsibilities of the corporation. Only DMC is a exception and enjoys certain parallel authority with some of the other organisations. It shares responsibility with Rajuk in some areas of physical development, with DPHE and WASA in extension of sanitation facilities, and with the Ministry of Health in extending occasional health services of the various organisation responsible for the delivery and maintenance of the urban services, only Rajuk, DMC and WASA are city organisation. All the rest are national organisation extending their particular service to the city. The various organisation operate, largely independent of each other under the administrative and financial control of their respective ministries and are providing their particular services through their own institutions and planning programmes. In some areas, there is certain overlap of functions of some of the organisations but basically each one of them is providing a unique service. Each has a master plan or site specific development plans within which they operate and undertake their respective works which can be broadly divided into three categories, namely, extension; maintenance and rehabilitation. A list of agencies are given in Table 2.2.

Table 2.2: Name of agencies for urban development in Dhaka:
their administrative ministries and major functions

SL	NAME OF AGENCIES	ADMINISTRATIVE MINISTRY	FUNCTIONS
1	Planning Commission	Ministry of Planning	National development planning, policies and strategies
2	Urban Development Directorate (UDD)	Ministry of Works	Nation wide urban and regional planning and strategies
3	Rajdhani Ummayan Katripakha (Rajuk)	Ministry of Works	Development planning for the Dhaka metropolitan area and its region
4	Housing & Settlement Directorate (HSD)	Ministry of Works	Public housing in cities
5	Public Works Departments (PWD)	Ministry of Works	Public institutional and office buildings and their maintenance
6	Deputy Commissioner of Settlement (DCS)	Ministry of Works	Land lease, title transfer
7	House Building Finance Corporation	Ministry of Finance	Loans for housing constructions in private sectors
8	Dhaka Municipal Corporation (DMC)	Ministry of Local Government, Rural Development and Cooperatives	Local authority for provision and maintenance services
9	Water and Sewerage Authority	Ministry of Local Government, Rural Development and Cooperatives	Provision of water supply and sewerage
10	Water Development Board	Ministry of Power and Water Services	National water and drainage management and flood control and related works
11	Power Development Board (PDB)	Ministry of Energy and Mineral Resources	Generation of electric power and supplies

SL	NAME OF AGENCIES	ADMINISTRATIVE MINISTRY	FUNCTIONS
12	Titas Gas	Ministry of Natural Resources	Supply of fuel gas
13	Telephone and Telegraph Department	Ministry of Post and Telegraph	Provision of telephone and telegraph services
14	Bangladesh Road Transport Corporation	Ministry of Railways, Roads, Highways and Road Transport	Provision of transport services
15	Department of Public Health Engineering (DPHE)	Ministry of Local Government, Rural Development and Cooperatives	Responsible for rural water supply, urban water and sanitation the then those served by WASA
16	Roads and Highways Department (R&H)	Ministry of Communication	Construction and improvement of highways, major roads, bridges and related works
17	Bangladesh Railways (BR)	Ministry of Communication	Expansion and maintenance of rail transport
18	Directorate of Land Records	Ministry of Land Reforms	Initiate schemes for survey/provision and revision of maps and records of rights
19	Survey of Bangladesh (SOB)	Ministry of Defence	Land records and arial photography
20	Space Research and Remote Sensing Organization (SPARSO)	Ministry of Defence	Satellite data
21	Directorate of Fire Service and Civil Defence (DFS&CD)	Ministry of Home Affairs	Alert at all times of fire and similar uncidents
22	Dhaka Metropolitan Police (DMP)	Ministry of Home Affairs	Ensuring total protection of life and property of the citizens
23	Environmental Pollution Control Department (EPCD)	Science and Technology Division Cabinet Secretariate	Taking into consideration air, surface and water pollution problems

SL	NAME OF AGENCIES	ADMINISTRATIVE MINISTRY	FUNCTIONS
24	Inland Water Transport Authority	Ministry of Communication	Develop, maintain and control inland water ways and water transport plying within the country
25	Educational Facilities Department	Ministry of Education	This department grew in 1972 to construct and repair all of the countries school buildings
26	Department of Social Services	Ministry of Social Welfare and Women's Affairs	Raising the socio-economic condition of the disadvantaged
27	Sports Federation	Ministry of Youth & Sports	Promotion of sports, stadium and important play grounds
28	Board of Investment (BOI)	Presidents Secretariate	Approval of industrial projects
29	Small and Cottage Industry Corporation (BSCIC)	Presidents Secretariate	Small and cottage industry development
30	Bangladesh Agriculture Development Corporation (BADC)	Ministry of Agriculture	Provision of markets
31	Uddayan Unnyan Board	Ministry of Agriculture	Development of horticulture
32	Housing Estates (HE)	Ministry of Commerce	Provision of land and housing

<u>Institutions</u>	<u>Current Responsibilities</u>																
	Planning	Housing	Land Acquisition	Drainage	Roads and Footpaths	Sewerage and Sanitation	Water Supply	Gas	Electricity	Education	Health	Social Development	Economic Development	Financing	Maintenance	Cost Recovery	Tenure
National level																	
Public works Department			•	•	•									•	•		
Housing and Settlement Dirt.		•	•	•	•	•	•							•	•		
Urban Development Dirt.	•																
Commissioner, Settlement																•	•
Planning Commission														•			
Department of Public Health Eng.				•		•	•										
Education Facilities Department									•					•			
Ministries of Health										•							
Social Welfare Department										•	•	•	•	•			
Small and Cottage Industries corp.													•	•		•	
Titans Gas Company								•						•	•	•	
Power Development Board									•					•	•	•	
External Resources Divisions														•			
Local level																	
Dhaka Municipal Corporation				•	•									•	•	•	
Dhaka Improvement Trust	•	•	•	•	•									•			
Dhaka Water & Sewerage Auth.						•	•							•	•	•	

Current Institutional Responsibilities

Fig. 2.3

After independences, the Government attempted to abolish the DIT through the formation of Dhaka Metropolitan Development Authority (DMDA) by the 1974 ordinance. The proposal which was in the DMAIUDP report had no effect. Afterwards there were conflicting opinion, some felt the formation of the Dhaka Metropolitan Authority (DMA) should be made through the using of only three organisation DIT, WASA, DMC and some felt that the organisations should be restructured. The Government agreed with the second opinion. In 1984-85 the Enam Committee worked out two proposals for DIT, in one it restructured the existing organisation of DIT by adding staff from 539 to 728 and in another it placed the proposal for the development of a new authority 'Dhaka Metropolitan Authority' (DMA). The Government approved the first proposal. The restructuring upgraded the post of some senior executives, nothing was changed in the system of administration and policies.

CHAPTER 3
PERIPHERAL AREA DEVELOPMENT

Chapter - 3

PERIPHERAL AREA DEVELOPMENT

3.1 The Demand for Urban Peripheral Land

The real explosion and growing size of cities and the resulting invasion of the rural land by urban phenomenon have caused a succession of landuses in a discordant and disassociated fashion, changing with any change in transportation technology and with provision of public utility services. In the early times, when overland movement was very slow, urban areas were more compact and the border area between the city and rural surrounds was more sharply distinguishable and was more clear cut both physically and culturally. With the growth of rail roads, automobile, bus, motor truck and modern paved highways cities began to expand, sub-urbanization accelerated. Modern transportation facilities and quicker movement between the work place and the residence, have caused greater urban invasion into the rural area. This invasion has caused a typical area: called Rural - Urban fringe, which is mixed with rural and urban characters and has a very different type of physical and cultural problem.

The demand for urban peripheral land has been explained by many researchers. In one of the early works, Clawson (1960) explains that the demand for urban peripheral land has been growing, primarily because of more people living in cities and their extending urbanized areas. Followed up by clawson, pryor (1968) adds, that the demand for the peripheral land can also be resulted from the personal decision and motivations of the individuals, along with the search for less congestion, more privacy and access to employment. But

these decision and motivations vary from individuals to individuals and may be correlated with socio-economic status. In addition to these, Johnson's (1967), work can give us another important reason. He explains, that the demand for the peripheral land can also be necessitated for the proper functioning of a city by placing its various secondary functions over there.

There are also evidences, where the demand functions have been considered solely on the transportation characteristics of a city. Hart (1976) explains, that the demand for the urban peripheral land has been growing increasingly because of the high speed highway along with the high speed automobile which together make an easy commuting distance from urban jobs.

Finally, Ramp's (1975) study on urban peripheral land leads to another direction. He argues, that the demand for the peripheral land is the consequences of Government policies that have directed and subsidized large scale investments over a long periods of time.

But as all these explanations came mainly from the studies of the cities in the western world, and so, it cannot be generalized for the cities in the developing countries. In most of the developing countries, the personal decisions and motivations of the individuals to search for land in the urban periphery for less congestion, more privacy or leisure are rare to happen, because the net work infrastructure and the commuting systems in these countries are often poor. Moreover, the majority of the city dwellers are poor, and usually want to stay near to the city centre where most of the job opportunities are concentrated. In addition to these, unlike western cities, the Governments in the Third

World cannot subsidized large scale investment due to the institutional, financial and also due to the management problems. As a result, the demand for the urban peripheral land in the developing countries are largely dependent on its proximity from the city center, and its access.

Moreover, the demand is often generated from out of the existing amenities and services in these areas with an expectation of these being provided in the foreseeable future (Chakravorty, 1983).

3.2 Characteristics of Sprawled Development in the Urban Periphery

The following section will try to elaborate the main characteristics and the causes of sprawled development in the urban periphery. In one of the early works, Wissink (1962) characterizes urban periphery as an area of great differentiation where various landuses with underlying farmings are intermingled in a random fashion rather than a homogenous one. Important characteristics of urban periphery can be presented from a more extensive review of 60 case studies of American periphery by pryor (1968), while pointing on land values and rates in th urban periphery pryor finds that these values and rates are rising from those of the surrounding rural areas, due to the continious urban invasion and by the gradual and irregular conversion of farm land to no farm use, but these values be still lower than those of adjacent urban center.

Besides this, he finds, that the urban peripheral land use can also be characterized by the significant number of newly established or recently relocated industries, but in a small

proportion that the urban place itself. About dwellings in peripheral area, he finds, that most of dwellings in the peripheral are incomplete and temporary with less number of rooms, but the lot sizes are greater than those of the urban area itself. In addition to this, the average house rents in the peripheral area are lower than the urban place, but higher than that of the surrounding rural areas. Socio-economic characteristics of urban periphery show that the majority of the dwellers, especially, in the residential peripheries, have the socio-economic status in the high and upper middle income brackets. Though the residents are usually economically tied to the central city, but they prefer to live in the periphery for spacious living. It has also found that though the residents exhibit a low degree of socio-community participation and associational ties but they are generally well satisfied with their location with the exception of unsatisfactory utility services.

Besides these physical and socio-economic characteristics there are also studies which have identified its administrative and planning characteristics. Bukman (1964) identified that the peripheral areas are characterized by the excessive and premature sub-division and undergoing a transition or stagnation in land use due to the tax delinquency. Moreover, there has been found a general need from both the urban and rural background peripheral area for the planning and control and the order and economy in the conversion from rural to urban land use through Governmental intervention by the provision of landuse zoning and by providing desired services.

The foregoing discussion on the characteristics of urban periphery is mainly based on the studies on cities in the western world and so, there has been found many differences between those cities and the cities in the developing world. In Bangladesh, it is mainly by the low income people who prefer to live in periphery mainly because of its proximity to the city centre and low cost of land and house rent. Though there are other instances in the Bangladesh, where high class residential areas have also been found in the peripheral such as Gulshan, Banani, Baridhara, Uttara Model Town, Pallabi Model Town, etc. But these areas are mainly developed by official planning efforts with a very high standard of development and services which often make its physical as well as socio-economic characteristics very contrary with the other periphery.

3.3 Pattern and Trends of Peripheral Area Development in Dhaka

The growth of Dhaka city has been extremely rapid during the last 4 decades. From a small population of only 200,000 in 1947, it has now grown into a city of nearly 4 million people in 1987. The area naturally has also expanded, but not in the same pace as that of the population. The city had an area of only 8 sq miles in 1947, while the area today is about 60 sq miles for the central city and upto 500 sq miles for the greater Dhaka city which includes peripheral areas, tracts of low lands and agricultural land and a number of settelite towns.

The peripheral area in Dhaka is continuously retreating what was a periphery 40 years ago, is part of the innercity, what was periphery 20 years back, is now part of the intermediate zone of the city. The present periphery surrounds the city in all directions.

We will now look into the process of peripheral area development in Dhaka over the last forty years. Peripheral lands were developed time to time in different directions and for different uses.

As in the case of residential uses some examples are:

- (1) Development of Mirpur into a large residential satellite in the 50s and 60s by the housing and settlement directorate (north-west periphery);
- (2) Development of Gulshan as a high status residential area in the 60s by the Rajuk (in the north-east periphery);
- (3) Development of Uttara as a large middle and upper middle income residential suburb beginning in the 60s by Rajuk;
- (4) Development of Khilgaon, Bashaboo, Madartek, Goran, middle and lower middle income residential suburb in the 60s (north-east periphery);
- (5) Development of Rampura, Badda middle and lower middle income residential area in the 70s (north-east periphery);
- (6) The Government decided to retain DND area as agricultural land in the late 50s and 60s. This large area has now been turned into a lower middle class residential area without official approval;

- (7) Large tracts of peripheral lands across the river Buriganga south of the city have been brought under mixed use of industries, were houses and lower income residence, by a combination of public and private efforts, but more prominently by private initiative.

CHAPTER 4

A CASE STUDY OF URBAN DEVELOPMENT
IN THE PERIPHERAL AREA OF DHAKA

Chapter - 4

A CASE STUDY OF URBAN DEVELOPMENT IN THE PERIPHERAL AREA OF DHAKA

4.1 A Profile of the Study Area: Rampura

4.1.1 General Background Information on the Study Area

During the past few decades rapid urbanization took place in the study area Rampura in the eastern peripheral region of Dhaka city. Prior to the encroachment of the urban expansion the study area was predominantly rural from the view point of settlement and land use. Except along the main highway leading outward from the heart of the city, the farm houses were scattered among the rice field on the high spot upon the arrival of new migrants, houses were sprung up on both sides of the circulation routes. Isolated farmsteads were simultaneously disappeared from the landscape while farming practice was abandoned. Agricultural lands in the sub-urban area has exhibited a mixing appearance of both rural and urban in terms of land use.

The rapid expansion of metropolitan area as evidenced from urban land use changes reflected the extension of the urban periphery.

The participants of peripheral land development during this long span have been mostly the public sector agencies, the individual household, housing co-operatives and housing limited companies slum and squatting, private commercial, industrial, agricultural firms. The actual residential development in the periphery lands, while large tracts of lands are held by richer household for speculative purpose or for future.



Photo-1: Main Rampura Road leading outward from the heart of the city



Photo-2: Low lying area of Rampura with 5-storey residential houses at the real view

The peripheral residential development have also emerged through inheritance, mainly for the native residents who have stayed on in the area inspite of large scale land transfers. At present the new settlers far out - number the original residents. The residential pattern developed through the individual households effort in the peripheral is rather haphazard and the housing characteristics are mixed. All services, including even access roads follows housing developments rather than proceede these.

A substantial conversion from vacant land or agricultural land into developed urban use was not a unitary event but instead was a result of many factors. The population has forced the city to grow in the form of lateral expansion into surrounding agricultural area where raw land was annually converted to urban purposes. The present pattern of growth was thus a product of the previous growth and activities under migrant pressures.

4.1.2 Location

The study area is a part of Rampura Ward No. 40 of Dhaka Municipal Corporation. East Rampura, West Rampura and Ullan was selected as the study area. The study area is located in the eastern fringe of Dhaka city. Today Rampura is bounded by a residential suburb 'Dadda' on the north, residential fringe 'Khilgaon' on the south, industrial area 'Tejgaon' on the west and 'Meradia' on the east. It has an area of approximately 378 acres and it is predominantly residential in character.

Rampura our study area is connected with the modern commercial administrative core of the city by one direct broad road. The distance between new CBD and Rampura is only 5 kms.

4.1.3 Population

It has been found that Rampura began to grow more rapidly only since 70s, when the housing situation in Dhaka started to become more acute. The growth of population in the study area has been phenomenal. This rapid increase in population can be demonstrated by few statistics.

Table 4.1: TOTAL POPULATION AND HOUSEHOLD IN THE STUDY AREA

Year	Total Population	Household
1961	1,351	211
1974	9,117	1,627
1981	21,081	3,607

Source: 1. District Census Report Dhaka, 1961
2. District Census Report Dhaka, 1974
3. Bangladesh Population Census, 1981
Dhaka Statistical Metropolitan Area

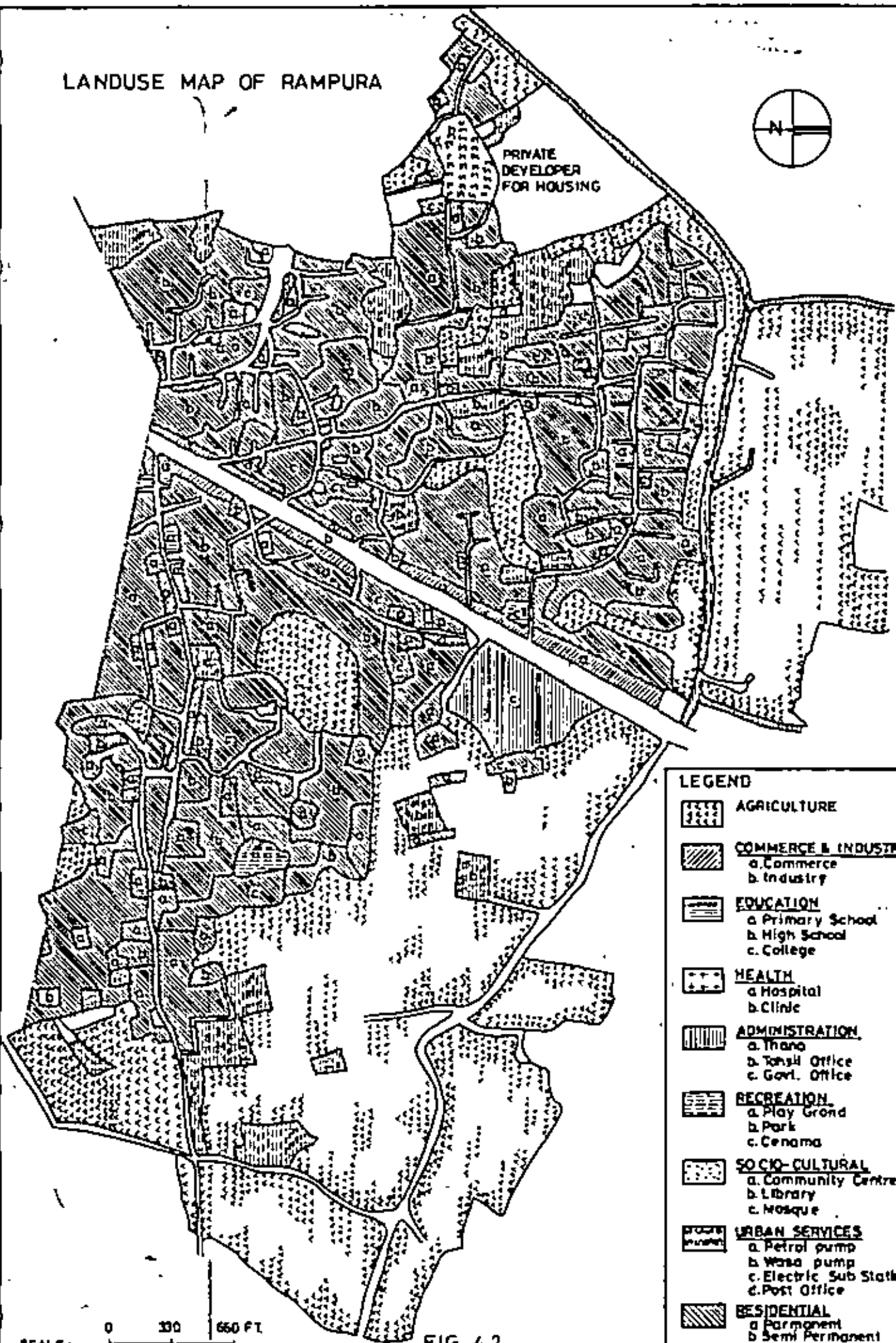
4.2 Existing Landuse

Theoretically, the spread of urban area toward the outer fringe could be considered as changes in landuse. Prior to the advancement of the urban tentacles, the existing land use in the study area was predominantly agricultural. According to Dhaka Master Plan the larger part of the study area was excluded from the plan. Subsequently development











LANDUSE MAP OF RAMPURA



PRIVATE
DEVELOPER
FOR HOUSING



LEGEND

-  **AGRICULTURE**
-  **COMMERCE & INDUSTRY**
a. Commerce
b. Industry
-  **EDUCATION**
a. Primary School
b. High School
c. College
-  **HEALTH**
a. Hospital
b. Clinic
-  **ADMINISTRATION**
a. Thana
b. Tahsil Office
c. Govt. Office
-  **RECREATION**
a. Play Ground
b. Park
c. Cinema
-  **SOCIO-CULTURAL**
a. Community Centre
b. Library
c. Mosque
-  **URBAN SERVICES**
a. Petrol pump
b. Water pump
c. Electric Sub Station
d. Post Office
-  **RESIDENTIAL**
a. Permanent
b. Semi Permanent
c. Temporary
-  **WATER BODY**
a. Pond, b. Citch

SCALE: 0 330 660 FT.

FIG 4-2

SOURCE: FIELD SURVEY: 1988

in highway construction passing through the area had ousted traditional land use pattern. A large transformation of land use occurred in the residential sector. Main categories of land use were as follows:

Table 4.2: EXISTING LAND USE IN THE STUDY AREA

Sl	Land use	Area in acres	Percent
01	Agricultural	131.26	31.79
02	Commerce & Industry	7.66	1.85
03	Residential	194.50	47.20
04	Educational	0.44	0.10
05	Health	0.13	0.03
06	Recreation	1.37	0.08
07	Socio-cultural	0.66	0.16
08	Road	7.54	1.83
09	Waterbody	21.83	5.29
10	Lowland	46.61	11.23
	Total	412.00	100.00

Source: Field Survey, 1988

As stated earlier the study area was very scarcely populated even 30 years ago. It used to be completely agricultural land. The change during the last 3 decades has been fast. Yet nearly 0.35 percent of the area studied is still agricultural or non-urban in character. Evidently, the study area is a residential suburb than any other kind. Except along the main road, majority of the settlement is

residential. The main road is lined with retail shop, furniture shops and occasional factories. All these commercial land uses cover 3 percent of the area. The educational institute, health centre, recreation facilities constitute only one percent of the area. In the land use map the main roads and lanes are showing which covers only 2 percent of the study area. Other by lanes are present but their condition are very poor, low land and water body constitute 10 percent of the study area which is now under the ownership of private household developer.

In the study area residential land use constitute 51 percent of total land, residential land use can be distinguished by permanent structure, semi-permanent and kutcha structure. Mixed residential was also found. In the mixed use commercial and industrial use were found to integrate with residential use. The practice specially represented the transition from rural to urban atmosphere.

Table 4.3: TYPE OF MIXED LAND USE IN THE STUDY AREA

Mixed landuse in the survey area	No. of plots	Percent
Residential and commercial	12	5.9
Residential and industrial	4	2.0
Not applicable	189	92.0
Total	205	100.0

Source: Field Survey, 1988

4.3 Socio-Economic Condition

Information on the socio-economic characteristics of the population is important, since population of different socio-economic background tend to have different patterns of life. Relevant and useful items of the community are presented in sub-sections.

4.3.1 Demographic Characteristics

In interviewing household heads, they were asked about their demographic characteristics such as, current age, sex, marital status, etc with regard to the age structure of the sampled heads of households virtually all of them are within the age range of 20 to 60 years which is economically active age range.

The study area is predominantly represented by males. Regarding marital status of the household heads, it is found that 94 percent were married and currently living together. The maximum number of families were found to have family members between 4 to 7, very large families were not uncommon and families with 7 to 10 members consisted of 30 percent of the sample. The national average household size in 1983 was 6.14 persons.

Table 4.4: HOUSEHOLD SIZE

No. of Family Members	No.	Percent
2	8	3.90
3	17	8.30
4	39	19.10
5	45	22.10
6	35	17.20
7	19	9.30
8	11	5.40
9	13	6.40
10	17	8.30
Total	205	100.00

Source: Field Survey, 1988

4.3.2 Education

As for respondents educational attainment, the sampled head of household represented a higher rate of literacy than the national literacy rate of 23.80 percent (1980). The educational attainment of the respondents is shown in the table.

Table 4.5: LEVEL OF EDUCATION

Level of Education of the Respondents	No.	Percent
University degree	91	44.40
Intermidiate	33	16.10
Secondary	26	12.70
Primary	31	15.10
Illiterate	24	11.70
Total	205	100.00

Source: Field Survey, 1988

4.3.3 Occupation

Regarding occupation the community under study seemed to do rather well. As far as the occupation of the respondent is concerned a good proportion of respondents were doing some kind of service which includes Government service and Semi-Government service. Some of these people seem to have bought land in the area in groups. The grouping was mainly occupation based. The original residents are generally in farming or have moved to retail trade or other business. The low income groups have occupations like rickshaw pulling, day labour and vending etc.

Table 4.6: OCCUPATION PATTERN OF HEAD OF HOUSEHOLD

Occupation	No.	Percent
Service	87	42.40
Business	78	38.00
Retired	18	8.00
House Wife	11	5.40
Un-employed	11	5.40
Total	205	100.00

Source: Field Survey, 1988

4.3.4 Income

In interviewing the household heads information on monthly household income was gathered. It is a middle and lower middle class area, with a few households which are fairly wealthy and a sizeable percentage of households who are in the low income category. It revealed that in the study area 50 percent of the respondents were in the income bracket of less than Tk 4,000 per month. Very low income group earning less than Tk 1,000 per month were 12 percent of the head of household. It was observed that the households heads education had a positive relationship with household income. Respondents with less educational attainment had lower income. The income group is shown in table.

Table 4.7: INCOME PER MONTH OF THE RESPONDENT

Income per month of the Respondents in Taka	No.	Percent
Less than 1,000	25	12.20
1,001 - 2,000	17	8.30
2,001 - 3,000	23	11.20
3,001 - 4,000	16	7.80
4,001 - 5,000	20	9.80
5,001 - 7,000	28	13.70
7,001 and above	49	23.90
Not applicable	25	12.20
No answer	2	1.00
Total	205	100.00

Source: Field Survey, 1988

4.4 Tenure of Land and Houses

To find the land and house ownership pattern of the respondents questions were asked. About 86 percent of the respondents are owner occupier. Only 14 percent tenants. The survey result is shown in table.

Table 4.8: LAND AND HOUSES OWNERSHIP

Land and houses ownership	No. of respondent	Percent
Own	176	85.90
Rented	29	14.10
Total	205	100.00

Source: Field Survey, 1988

The survey was designed to find out the size of plot owned by the respondents. The result shows that more than 30 percent of the respondents owned plots between 2 to 5 kathas. However, a few do own fairly large plots. Some of these are held by the original farming families. Parts of such large plots might be sold out later for creating funds for house construction. The result is shown in the table.

Table 4.9: PLOT SIZE OF LAND OWNED BY RESPONDENT

Area in katha	No. of plot	Percent
Below 1 katha	11	5.39
1 - 2 katha	35	17.00
2 - 3 katha	48	38.23
3 - 5 katha	51	24.49
5 and above	30	14.70
Total	205	100.00

In the study area mainly three types of structure was found. The houses are generally of permanent built. About 50 percent are pucca building, rest of the house are semi-pucca and katcha type of structure.

Table 4.10: PREDOMINANT HOUSE TYPE

House type	No. of structure	Percent
Pucca building	105	50.98
Semi-pucca building	55	26.96
Katcha structure	45	22.05
Total	205	100.00

Source: Field Survey, 1988

The house owners were asked if they had obtained permission from concerned offices to build their houses. It was found that only 40 percent had official permission for construction of their houses. The result is shown in the table.

Table 4.11: OFFICIAL PERMISSION TO BUILD HOUSE RECEIVED (for only pucca building)

Weather permission received	No. of houses	Percent
Yes	46	44.00
No	59	56.00
Total	205	100.00

Source: Field Survey, 1988

Regarding source of acquiring land in the area the survey result shows that were 50 percent of the respondent had bought the land. A good portion had got possession of the land through inheritance. The table shows the sources of land ownership.

Table 4.12: SOURCES OF LAND OWNERSHIP

Source	No. of plot	Percent
By inheritance	55	26.96
By exchange	5	2.45
By purchase	120	58.50
Not applicable	29	14.10
Total	205	100.00

Source: Field Survey, 1988

4.5 Existing Municipal Services

To sketch the entire setting and to focus on those features which are most important, the physical and environmental conditions of the study area are described at some length. Infrastructure facilities, services and utilities covering a variety of components such as access, water supply, electricity and gas, drainage, garbage disposal.

4.5.1 Access

Access here means pedestrian or vehicular linkages from existing or planned approaches to the building sites i.e. these are the ways that allows entrance to and exit from the building site properly. The existing condition of the access availability interms of quality and adequacy have been studied. The survey finding show that 84 percent of the plots have access facilities from the approach roads. But among these access roads only 2 percent are in satisfactory level, others have access only to narrower and unsurfaced roads. During rainfall, the condition of the walkways became very critical. Due to absence of adequate drainage the walkways were submerged under water and became so filled with waste that dwellers could hardly find ways to move. Some 16 percent households have no road access yet, these are to be reached by boat in rainy season and on foot across fields in dry season.

4.5.2 Water Supply

It has been found that irrespective of plot size, 82 percent of the houseowners have water supply by WASA. About 18 percent households have their own tubewells and depend on various other sources, among the surveyed households only 27.31 percent of them are satisfied with the water supply system. Majority of their other houseowners mentioned that the water supply is unsatisfactory.

4.5.3 Electricity and Gas

Most of the households have electricity (99.5 percent) but only 17.07 percent are satisfied with the supply system majority of the households are not satisfied. Most of the

households have gas supply and majority of them are satisfied about gas supply.

4.5.4 Human Waste Disposal

There is no water borne sewerage facility in the study area. About 53.7 percent have installed septic tanks while the rest use service latrine pit latrine for human waste disposal.

4.5.5 Garbage Disposal

The collection and disposal of household and commercial solid waste in Rampura is currently a haphazard process with many potential health risks to residents. The collection of garbage in Rampura is taken place from communal containers which have been provided to only some parts of the study area. The households are expected to collect within the home and disposal it into the nearby container. Where no communal container is within reasonable reach the public either throw their garbage into waste ground in the neighbourhood or throw it into the street and storm water drains. Only 9 percent households have garbage disposal provision within their reach. The garbage in the containers is collected and dumped at a crude landfill site on the peripheral low lands in Rampura. The garbage collection service is not consistent and hardly any supervision is carried out. The condition of the garbage containers is completely unsatisfactory and the situation in the food market areas is even more acute.

4.6 Community Facilities

Opinions of resident households were asked about condition of thirteen elements of physical and community facilities. The people are quite satisfied with the primary and secondary school condition. But for the whole area there is no college.

In Dhaka food or other retail markets are located almost every where. In the study area about 70 percent of the households surveyed reported having access to a market located within half a kilometer distance. But for the whole area there is no permanent food or retail shopping centre, usually the market placed themselves on the roadside of the main Rampura Road.

For the whole area there is no community centre. There is no planned park, playground facilities for the children. The house owners are not satisfied with the postal facility, security system and fire protection. For the whole area there is no public family welfare centre other than private clinic.

CHAPTER 5

PROBLEMS OF THE STUDY AREA AND
PROPOSAL FOR FUTURE LAND USE

Chapter - 5

PROBLEMS OF THE STUDY AREA AND PROPOSAL FOR FUTURE LAND USE

5.1 Existing Problems of the Area

In the study area the utility services are present, but the quality of services are not good. The inhabitants were dissatisfied with almost all existing infrastructure services and utilities, indices of satisfaction of the dwellers with various infrastructure services and shelter are shown in the table.

Table 5.1: INDEX OF SATISFACTION

Component	Index	Ranking (in order of dissatisfaction)
Access	-0.95	1
Sewer line	-0.85	2
Garbage disposal	-0.81	3
Street light	-0.73	4
Telephone	-0.71	5
Drainage	-0.70	6
Electricity	-0.65	7
Water supply	-0.34	8

Source: Field Survey, 1988

Source of formula: Index of satisfaction
Upgrading a slum settlement in Dhaka
By - Md Abdul Quader Miah, Karl E. Weber,
& Nazrul Islam



Except the main Road the overall road pattern has evolved through the needs of the community and also through the land development process, rather than through the design by any development authority

Photo-3: Due to encroachment of plots of inhabitants the narrow roads become more narrower



Photo-4: Accessibility to individual plots takes place after the owner construct their dwellings and keep a space

Besides access, the condition of utilities is also poor in terms of quality. Though it has been found that irrespective of plot sizes, majority of the houseowners have water supply, electricity and gas, there is virtually no sewer line or proper garbage disposal system and very few houses have drains. The existing quality of these services are also very poor and need immediate improvement. This situation has resulted from the negligence of the concerned authorities to supply the services regularly. Apart from these, majority of the houseowners complained about the present garbage disposal system. Besides there is no sewerage system.

The major disadvantages which are being felt by the community is the lack of community facilities. Opinions of resident households were asked about condition of thirteen elements of physical and community facilities. The people of the area are satisfied with the number of school but they are quite unhappy about the quality of school. Moreover, for the whole area there is no college.

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About community facilities, like medical centre, post office, police station, fire protection are absent in the locality. More than 85 percent people have to reach from their residence by more than 2 miles.

In the study area about 70 percent of the household surveyed reported highly dissatisfaction about the condition of daily market. For the whole area there is no permanent food or retail shopping centre. Usually the market placed themselves on the roadsides of the main Rampura Road.

For the whole area there is no permanent food or retail shopping centre. Usually the market placed themselves on the roadsides of the main Rampura road. About 70% of the household surveyed reported highly dissatisfaction about the condition of daily market .

Photo-5: The main daily bazar usually placed by the side of main Rampura road



Photo-6: The daily bazar in the area placed themselves in the street, creating the narrow road more narrow and hazardouz.

Table 5.2: DISTANCE OF COMMUNITY FACILITIES FROM RESIDENCE

	Distance (mile)						Not App	Don't Know
	<3/4	3/4-1/2	1-1 1/2	1 1/2-2	2-3	5+		
Primary School	46.0	54.0	-	-	-	-	-	-
Secondary School	36.0	61.0	1.5	1.5	-	-	-	-
Daily Market	51.0	25.0	2.4	22.0	-	-	-	-
Grocery Shop	66.0	33.0	1.5	-	-	-	-	-
Mosque	85.9	2.9	1.5	0.5	-	9.3	-	-
Community Centre	1.0	2.4	0.5	3.4	0.5	82.0	9.8	0.5
Park	-	1.5	-	0.5	-	91.2	6.3	0.5
Medical Centre	0.5	3.4	0.5	2.9	-	85.4	6.8	0.5
Playground	-	4.4	2.0	1.5	0.5	91.2	-	0.5
Post Office	0.5	1.5	-	0.5	5.9	21.0	69.3	1.5
Police Station	13.2	10.7	0.5	14.1	13.4	7.3	28.8	2.0
Fire Protection	-	2.0	-	1.5	3.4	85.9	5.9	1.5
Family Welfare	7.8	28.3	0.5	9.3	0.5	45.9	5.9	2.0

Source: Field Survey, 1988

In addition to this the residents desire other basic community facilities, like community centre, play field, post box, police station, which are very necessary for the proper functioning of a community.

When the resident households were asked about areas where the government assistance was desirable the answers corroborated with the comments on present condition. Thus

demand for improvement came for roads, drainage, sewerage, schools, daily market and medical facilities. Other areas where government assistance was deemed desirable were police protection, postal services, market, playground community centre, etc.

Table 5.3: EXISTING MUNICIPAL SERVICES IN THE AREA
(in percent)

Sl	Services	Yes	No
01	Access	84.40	15.60
02	Water supply	82.40	17.60
03	Electricity	99.50	0.50
04	Gas	82.90	17.10
05	Telephone	20.00	80.00
06	Street light	29.30	70.80
07	Garbage disposal	8.80	89.30
08	Swerage line	34.60	65.40
09	Drainage	21.00	79.10

Source: Field Survey, 1988



Majority of the house owners complained about the present garbage disposal system

Photo-7: The disposal of household solid waste in the area is currently a haphazard progress with many potential health risks to residents



Photo-8: The public throw their garbage into the street

Table 5.4: SATISFACTION LEVEL OF PRESENT MUNICIPAL SERVICES IN THE AREA (in percent)

		Satisfied	Not Satisfied	Don't Know	Not App.
01	Access	2.00	3.00	1.46	13.65
02	Water supply	27.31	55.60	1.46	15.60
03	Electricity	17.07	82.92	-	-
04	Gas	82.00	1.95	-	15.60
05	Telephone	2.92	17.56	0.48	79.02
06	Street light	9.75	63.41	-	26.82
07	Garbage disposal	6.82	68.29	-	24.87
08	Swerage line	3.41	43.90	15.60	37.07
09	Drainage	3.41	20.00	16.09	60.48

Source: Field Survey, 1988

Table 5.5: EXISTING COMMUNITY AND RECREATIONAL FACILITIES (in percent)

Sl	Services	Satisfied	Not Satisfied	Don't Know	Not App	No Ans
01	Primary School	42.4	55.1	0.5	1.0	1.0
02	Secondary School	40.0	57.6	0.5	1.0	1.0
03	Daily Market	30.2	69.3	0.5	1.0	-
04	Grocery Market	32.2	66.8	-	1.0	-
05	Mosque	89.3	-	-	10.7	-
06	Community Centre	-	-	-	98.9	1.5
07	Park	6.8	-	19.5	71.7	2.0
08	Medical Centre	2.4	10.2	19.5	66.3	1.5
09	Playground	2.9	5.9	19.5	70.2	1.5
10	Post Office	2.9	74.1	18.5	2.4	2.0
11	Police Station	13.7	74.1	6.8	0.5	4.9
12	Fire Protection	1.5	9.3	18.5	67.8	2.9
13	Family Welfare	33.2	17.6	11.2	34.6	3.0

Source: Field Survey, 1988

5.2 Causes of Problems: Problems due to different Agencies Administrative and Management Problems

The complex problems of managing the massive acceleration of urban growth at the same time improving the quality of urban services, have resulted in setting up a number of institutions in Metropolitan Dhaka for the management of the city. A list of such agencies is given in Chapter 2 along with the name of their administrative ministries and their major functions.

Among these agencies, the Rajdhani Unnayan Katripakha (Rajuk) and Dhaka Municipal Corporation (DMC) are the most influential and primarily responsible for the management of Dhaka city.

Development of Dhaka in itself is not a singular responsibility of any particular ministry except that the physical planning is under the control of the ministry of works through a specific agency, namely Rajdhani Unnayan Katripakha (Rajuk) logically therefore the development policy proposal should originate from Rajuk but in effect Rajuk is more of a development control than a development planning agency for the city and that too in the narrow sector of land development. Rajuk has no control over economic and social planning which ofcourse affects the city's demographic and physical growth and its capability to plan.

In its planning role, Rajuk is responsible for the administration of the current master plan and for the preparation of new master plan. A master plan for Dhaka was prepared in 1959. Although the master plan is now well out of date and only extends to part of the area covered by

Rajuk's limit. No steps have yet been taken to produce a new one.

The existing organizations changed with the development and maintenance of urban infrastructure and services are working generally independent of each other and without a common strategy. The nearest thing to developing a common development strategy happened, in 1981 when Dhaka Metropolitan Area Integrated Urban Development Project (DMAIUDP) Report was submitted to the Government. It examined and recommended the strategy and institutional framework for an integrated urban development of Dhaka. The report has neither been adopted officially nor any other preferred policy plan has been evolved since to constitute an integrated response to the development challenge faced by Dhaka.

The plan is basically a development control document. The Town Improvement Act (1953) provides regulatory powers for DIT (now Rajuk) over a designated area. In practice development control, based on the control of building on individual plots, can only be effective in the specific development areas which are planned and leased by Rajuk. Development in other parts of the city remains largely uncontrolled. The result is that not all the development areas proposed in the master plan have yet been developed. Two examples are Uttara Model Town and the proposed development north of Tongi on the other hand there has been substantial unplanned growth around the edges of the city.

The eastern periphery has been shown as the flood prone zone in the 'Master Plan' of 1959 and as a result the development agencies like Rajuk are not concerned about this area. So far the development on the eastern periphery had been

initiated by the individuals were given out after the areas were inhabited by the people.

Neither of the two Acts TIA and EBBCA says anything about the limit of sub-division of residential lands. Besides limit there is no strict enforcement of proper shapes of sub-division. As a result in the study area the landowners sub-divide their land into any small parcel and into any shapes. About 57 percent house have been built without official approval from Rajuk. In fact only 43 percent of houseowners of the pucca building have built their houses with Rajuk permission. Even among the authorised construction in majority of the cases set back rules were not properly followed, which ultimately turns into shoulder to shoulder residential structures with lack of open space, light and ventilation. As a result the area becomes congested and creates unhealthy environment. In the study area mixed landuse exist about 6 percent of the houses build shops in front of their building. Because the people of the community need grocery shop and there is no planned market in the area, as a consequence grocery shopees are seen here and there. This situation is the result of unplanned and haphazard growth.

The usual practice of land development in the study area is that accessibility to individual plots takes place after the owner construct their dwellings and keep a space of 6 to 8 feet along their boundary. After a settlement grows, pressure is created on the government to construct the road. Due to encroachment of plots of inhabitants the narrow roads become more narrower. In the study area except the main road which varies from 25 feet to 30 feet. The width of other roads and pathways varies from a minimum of 5 feet to a maximum of 10 feet. The overall road pattern has evolved

through the needs of the community and also through the land development process, rather than the design by any development authority. All these problems of unauthorised construction, mixed landuse, encroachment problems are sheer evidences of poor management of Rajuk.

Dhaka Municipal Corporation is entrusted with the responsibilities of public health which reflects its responsibility to protect the sanitation of the city; construct, maintain and to clear the refuses for ultimate disposal; to prevent and protect public safety; to construct, maintain and to control public streets; to protect trees, parks, gardens, forests within its boundary; to prepare development plans for the city, if necessary, it seems that Dhaka Municipal Corporation has too many functions to perform. As a result it fails to perform even the basic needs of the city. The evidence of its failure can be seen in the study area.

The condition of utilities is also poor in terms of quality. Extant conditions of roads, lanes, walkways, water supply, sanitation system, drainage, garbage disposal system and other services were deplorable. These services are not satisfactory because the utility agencies have no layout plans of the area. The area is growing on its own in unplanned and uncontrolled way. There is no density control of the area. These unplanned growth creates problems such as inadequate access, lack of infrastructure network, absence of social facilities and unhealthy environment. For example in the narrow streets which are 5 to 6 feet wide, conservancy car could not enter, consequently the areas become hazardous with garbage.

The major disadvantages which are being felt by the community is the lack of community facility. The people of the area are satisfied with the number of primary school. But for the whole area there is only one secondary school of inadequate capacity. More than 60 percent of the students have to walk around one mile to reach the school moreover for the whole area there is no college. The students have to reach nearest college by 2 miles.

70 percent people are not satisfied with the daily market condition. 22 percent of them have to walk about 2 miles to reach the market. For the whole area there is no permanent food or retail shopping centre. Usually the market placed themselves on the roadside of the main Rampura road, creating the narrow road more narrow and hazardous.

In the study area there is no community centre, nearest community centre is located in Khilgaon. There is no park in the area. The children of the area have to play on vacant plots or in the roads. 92 percent people have to reach nearest playground by more than 1 mile. There is no proper medical centre in the locality.

So far it can be seen that in the eastern peripheral areas the development process is only carried out by individual effort. The DMC does not have any planning cell in it and although Rajuk is supposed to be a planning and development body, its planning wing is also not properly working.

Thus Dhaka has kept growing uncared without any conscious effort for planning control and management.

5.3 Proposal for the development of the study area Rampura

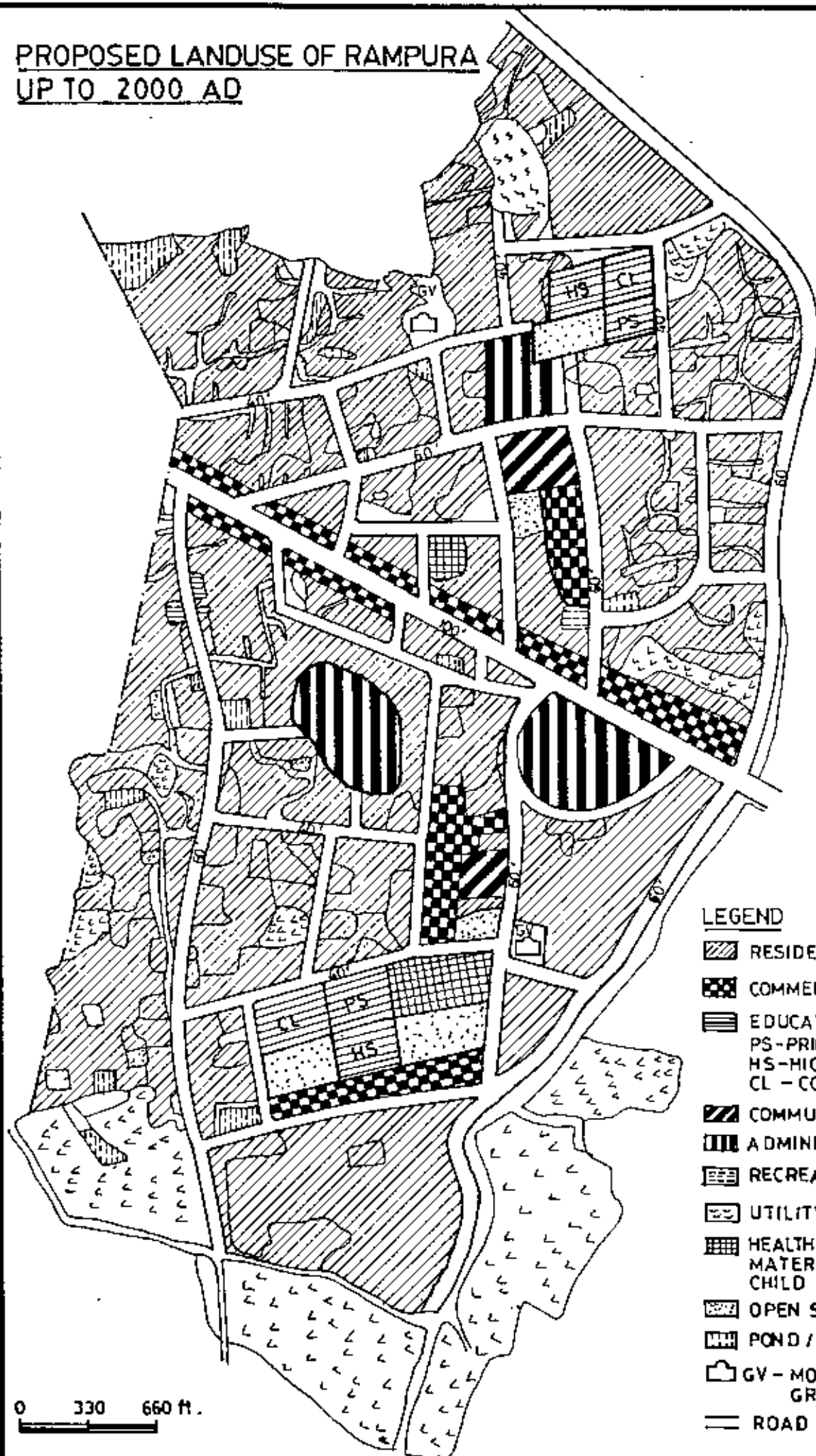
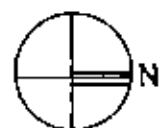
The study area Rampura provides a vivid example of the potential and the problems of planned peripheral growth of the existing city. At the current time it constitutes the largest undeveloped site easily accessible to employment opportunities. The area lacks a planned road system. The environmental condition of the area is critically affected by insufficient refuse disposal system. There is no sewerage system. The inhabitants are dissatisfied with the condition of daily market, community facility, open space and recreation facilities. It is most important that this area must be included in any longer term plan, which should pay particular regard to social facilities, access, sanitation, water supply, drainage and community facilities.

Urban development is a complex process involving many interacting physical, economic and social elements. In order to minimize the negative consequences of uncontrolled growth, a suitable landuse plan for the study area has been proposed and minimal improvements have been suggested. The primary objective of the proposals is improvement of living conditions, through the provision of urban services.

Plan Description:

The planning standard has been adopted from the "Final Feasibility Report of Housing Development Project - Mirpur". The existing landuse in each category has been kept undisturbed except in the case of road expansion some lands of private property will be acquired if necessary to widen the existing road. Low lands and water bodies has been proposed for various purposes. The proposed landuse plan is based on the projected population of the area (Table 5.6).

**PROPOSED LANDUSE OF RAMPURA
UP TO 2000 AD**



LEGEND

-  RESIDENTIAL
-  COMMERCIAL
-  EDUCATION
PS - PRIMARY SCHOOL
HS - HIGH SCHOOL
CL - COLLEGE
-  COMMUNITY CENTRE
-  ADMINISTRATIVE
-  RECREATION
-  UTILITY SERVICES
-  HEALTH CENTRE
MATERNITY
CHILD CARE
-  OPEN SPACE & PARK
-  POND / DITCH
-  GV - MOSQUE AND GRAVEYARD
-  ROAD

0 330 660 ft.

FIG.

The study area consists of 412 acres of land area spread mainly two sides of a broad DIT road. The existing landuse have been mapped and described in Chapter 4. The proposed upgrading plan of the existing landuse is discussed in the following Section.

5.3.1 Commercial and industrial facilities

An increase in population from the present 72,551 to around 286,440 in 2000 AD (projected) will take Rampura to a level of development that warrents a major commercial centre. In the study area commercial growth has taken place along the major access road i.e. Rampura DIT road.

For a planned development and to meet the demand of growing population of the area three major commercial areas besides the existing commercial area are proposed. One in Ullan and two in east Rampura. Some of the present unplanned shops are proposed to be rehabilitated on a proposed market area. The three commercial areas will also include daily bazar.

Within the study area there is no major industries. There are some small scale industry in the peripheral areas along the low lands. The study proposes some 30 acres in the area may include for small scale industry and commercial purpose.

Table 5.6: FUTURE POPULATION SIZE OF THE AREA

Total Projected Population in the Study Area:

Year	Population
1985	36,513
1990	72,551
1995	144,158
2000	286,440

Source: Projected From Present Population

Table 5.7: STANDARDS FOR COMMUNITY FACILITIES

Facility	Population	Space Required (in acre)
Primary school	10,000	0.29
Secondary school	20,000	0.59
College	50,000	0.98
Health clinics	25,000	0.29
Market	25,000	0.98
Community centre	50,000	0.49
Religious centre	10,000	0.14
Fire station	75,000 - 100,000	0.49
Post office	75,000 - 100,000	0.09

Source: "Housing Development Project Dhaka
Urban Development Sub-contract-B Mirpur"
Final Feasibility Report
By - Government of Bangladesh, UNDP, UNCHS-HABITAT

Table 5.8: PROPOSED LANDUSE PLAN FOR STUDY AREA FOR A POPULATION OF (286,440 IN 2000)

Facility	Existing Area	%	Proposed Area (Acres)	%
1. Agriculture	131.26	31.79	38.00	9.22
2. Commerce and Industry	7.66	1.85	29.08	7.20
3. Residential	194.50	47.20	250.00	61.00
4. Educational	0.44	0.10	10.00	2.42
5. Health	0.13	0.03	4.32	1.04
6. Recreation	1.37	0.08	6.00	1.45
7. Socio-cultural	0.66	0.16	5.00	1.21
8. Urban services	0.00	-	4.00	0.97
9. Road	7.54	1.83	60.00	14.56
10. Waterbody	21.83	5.29	5.00	1.21
11. Low land	46.28	11.23	0.00	-
Total =	412.00	100.00	412.00	100.00

Source: Field Survey

5.3.2 Residential

The study shows that the total residential land in the study area is 195 acres. The population of the area is 72,000 giving a net residential density of 369 persons per acre. Two new residential areas are proposed for sites and services scheme for the middle income and low income group in the east Rampura side. The proposed areas are now being used for agricultural purposes. The total residential area will be 250 acres to meet the growing demand of population,

which is 61 percent of total land. People displaced by development works will also be rehabilitated in these areas.

5.3.3 Education

An area of 7 acres is proposed for 2 new primary school, 2 new high school and two college. All the new educational centres will be adjacent to play fields. This new proposed complex will occupy 2.42 percent of the area.

5.3.4 Health

There is no health centre in the study area. Two centres for these facilities are proposed in the area which will need 4.32 acres of land, 1.04 percent of the total land.

5.3.5 Roads

The proposed roads are mainly the existing ones recommended for upgrading. 60 additional acres of land will be required for road improvement.

5.3.6 Recreation

Park, Open space

There is no recreation facilities in the study area in the form of parks or open green space. Several parks and open spaces, play grounds is proposed in the study area so as to provide green open space and relieve congetion in the study area. A total of 6 acres land is proposed in the study area to be developed as parks and open recreation areas, the proposed area will occupy 1.45 percent of the total land.

5.3.7 Socio-cultural

Community centre, library, mosque

An area of 5 acres of land 1.21 percent of total land has been earmarked in the study area. Community centres may have annexes for other social services such as vocational centres. Religious centres include mosques, temple churches and may provide for madrasha etc.

5.3.8 Urban services

Landuse proposed for different urban services like post office, fire station, bus station, garbage disposal, needs 4 acres of extra land which will occupy 0.97 percent of total land.

CHAPTER 6

**SUMMARY OF FINDINGS,
CONCLUSIONS AND RECOMMENDATIONS**

Chapter - 6

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, an attempt has been made to synthesize all the information presented in the earlier chapters on urban landuse development process in order to assess the significance of Rampura the study area and its future planning along with the role of urban administration in Dhaka city.

6.1 Summary of findings

1. Dhaka city has experienced a phenomenal growth of population during the last two decades and if the present trend continues by the year 2000, nearly nine million people will be living in Dhaka up from about four million in 1985.
2. In effect just about a decades growth will add on equivalent of the todays city with all that this create massive amounts of infrastructure and services.
3. Presently some 30 desperate organization under different ministries are responsible for planning and providing urban facilities and services to Dhaka.

Agencies of urban administration and management:

4. The unregulated development of land and housing is a clear evidence of the weakness and ineffectiveness of the agencies of urban administration, particularly the DMC and RAJUK.
5. The Dhaka Municipal Corporation is generally responsible for the maintenance of basic infrastructural services. It has been evident from the study that the Corporation fails to provide

such services even to reasonable extent reasons identified for such deficiencies is not only lack of financial resources but also inadequacy of man power. But more than these factors, the Corporation also suffers from poor management in various parts of the city. The fact that the Corporation does not even have any physical planning section or a planner is a reflection of its perception of planning needs. The Corporation also is not involved in housing activities or in land development for residential purpose.

6. The RAJUK which has involved itself in land and residential development has done so almost exclusively for the upper income groups. Although they are responsible for controlling all kinds of development, it has failed to perform these responsibilities in most areas, particularly in the peripheral areas. For many such areas, the DIT has not been able to prepare any zonal plans or to regulate on going building activities under private initiatives. Once again the failure is ascribed to the considered reasons of lack of adequate personnel. The organization does have a planning division but its man power is extremely limited. DIT even lacks subdivision regulations.

Peripheral area development:

7. The growth of activities in an urban area has influences the nature of the peripheral areas which changed from being a dominantly agricultural area to an area with mixed uses. The conversion of land in peripheral areas from agricultural to non-agricultural uses creates several problems.
8. The cities in developing countries are expanding at a very fast rate and are experiencing more or less similar problems as were faced by the developed countries of the west. As the

cities grows, the problems increase in intensity. Neglect of these problems may not only have negative effect on the efficiency of cities but may also result in spill out of these effect to adjoining rural areas. The problems of peripheral area development in this context acquire special significance.

9. The periphery in Dhaka, as it is in all cities, is continuously retreating. What was periphery 40 years ago, is part of the inner city, what was periphery 20 years back, is now part of the intermediate zone of the city.
10. The urban peripheral areas of Dhaka city are characterized by rapid changes in their landuses. Rampura the study area is changing fact from agricultural to urban residential.

A case study of urban development in the peripheral area of Dhaka:
The case study provides the features such as the followings:

11. If growth does not take place in a planned way then it lacks direction and creates problems of inadequate services, pollution and growth of squatter settlements. This is true in the case of Rampura the study area.
12. In the study area the utility services are present, but the quality of services are not good. The inhabitants were dissatisfied with access human waste disposal system, garbage disposal system, drainage and community facilities.
13. The study area has been shown as the flood prone zone in the "Masterplan" of 1959 and as a result the development agencies are not concerned about this area. So far the development on the study area has been initiated by the individuals and the different utility services were given out after the areas were inhabited by the people.

14. Thus the area has kept growing uncared without any conscious effort for planning control and management.

6.2 Conclusion and Recommendations

Much of DIT's efforts in the past and that of the Rajuk in recent times have been claimed in remedying the past than planning for the future unless the future is brought to a much better focus, planning will continue to be a development after event and the city authorities will be repeating the efforts of today only it will be much larger in scale and much nearer in future.

In effect just about decades growth will add an equivalent of the today's city with all that this implies interms of the need to create massive amounts of infrastructure and services. There is no organization with authority or necessary resources for the city to engineer a meaningful response to this challenge of exploding urban growth. The likely scenario is that in the near future the demands for new services and structures will outpace the investments and just making a modest improvement in basic amenities will be a big achievement.

This does not mean that the city has reached into where growth is incompatible with civilized unity. There is no optional city size but its efficiency is a direct function of generation of new economic activities and infrastructure to the population growth. Nothing that the resources for investment will remain limited over the perspective period, Dhaka cannot expect a disproportionate share of the national resources for its development and must therefore undergo a careful balancing

act between servicing the inevitable growth and convicting the existing critical conditions.

To accommodate the anticipated growth the metropolitan planning area has been extended. The extension of planning limit without a carefully designed safeguard would be a powerful encouragement to indiscriminate land speculation. Land for settlement and other urban uses should be available at an affordable cost. The uncontrolled working of speculation has put the prospect of owning a house even at the urban periphery well beyond the reach of the vast majority of new households and if allowed to fester, will soon make large infrastructural projects prohibitively expensive, urgent intervention is necessary to secure the future, consideration may be given to imposed a statutory freeze on private sale of land within the designated metropolitan planning area without the city having to acquire land in advanced to meet the long term needs of its future growth under such a scheme an owner would continue to enjoy and use his land subject to permitted landuse and based on current prices, would be given a reasonable interest bearing on which could be exchanged at the time of actual acquisition. This would ensure a fair price but allow no windfall gains. The suggestion may sound radical, but the situation is critical and warrents extreme measure.

The so-called new towns policy isn't for the Bangladeshi economy nor for its culture. Moreover, there is no such 'Green-belt' type of blanket control on urban expansion as in British or other cities. A privileged minority worry about their comfort and future, but their ostentation can not be considered as priority in the face of large underprivileged sections. A realistic approach in the planning would be to envisage which would be possible and feasible rather than what may be desirable. Although not enough, there is a shift in the

planning process in the neighbouring countries in India, Sri Lanka and Pakistan. Their planners are now more concerned with promotional than regulation activities, with piecemeal redevelopment rather than comprehensive development, with economic aspects than physical aspects, with priorities for action rather than utopia, or positive planning rather than long term forecasting (Safieer, 1983). Lessons can be taken from this neighbouring cities rather than the western cities.

It can be said that, Dhaka does not need a nice drawn dream plan, it needs a positive plan where the planning can be put back into action. A consolidated expansion programme, not conspicuous new towns nor a rigid land use master plan, may be what Dhaka needs: that would economise on long journeys to work and reduce the need for provision of various infrastructure. An expansion programme like this, and well thought out locational relationship of and use which this, and well thought out locational relationships of and use which constitutes 'area improvement plans' would ensure that everyone would not have to fight to get to the city centre.

It also needs very careful consideration about the structure planning in Dhaka. As in the case of new towns strategy, the framework of this plan was developed based on the socio-cultural and economic factors of Britain. It needs a proper evaluation in terms of Dhaka's planning system and control. Moreover, the idea of simultaneous master plan, new town planning and structure planning are conflicting and ambiguous to each other.

It is beyond the scope of this research to go on a comprehensive suggestion in this respect, neither is the author competent to do so. A brief hint that as to what type of strategy might be effective in solving the existing

problems of the area is given below:

1. Rajuk will be responsible to undertake general land development projects by putting in infrastructure and sub-dividing the land for the private sector or for public sector building authorities.

Dhaka Municipal Corporation is the suitable body to undertake those functions which are concerned with the more detailed improvements to the physical and environmental structure of the area. DMC is likely to be much more familiar with the problems and implications of the proposed changes and are more closely associated with the people than Rajuk.

2. The development activities are interdependent and therefore coordination is necessary for bringing the planning and execution into a better focus. The first effective step towards this would be the area covered by Dhaka Metropolitan and its surrounding peripheral areas should be made the sole jurisdiction for purposes of local Government. The growth of the area, its planning and development should be controlled by more powerful local Government. Thus it could be eliminate the problems of overlapping areas, maximum utilization of equipment finances and personnel; equitable allocation of services would be within reach of such a single jurisdiction. Of the various organizations responsible for the delivery and maintenance of the urban services, only Rajuk, DMC and WASA are city organization. All the rest are national organization extending their particular services to the city. There is no apex organization to coordinate at either city or national level. Development activities are interdependent and therefor coordination

is necessary to bring the planning and execution into a better focus. The starting point could be the local Government to act as the coordinating body for all city development activities by different public agencies and provide it with sufficient vetting power over all physical development proposals by the others.

3. There is no public policy in urban land. The local Government can lay down future plans and minimum standards for the city's development and reserve land for major infrastructure and common public facilities. This is possible through an effective enforcement of a policy plan which will set forth a comprehensive framework for long term development by providing as firmly as practical:
 - Spatial location of the future growth and of the major infrastructure and thus
 - A coordinated basis for development agencies to proceed in the knowledge that they are all working to a common goal
4. Rajuk should try to prepare plans for peripheral areas where very real urban emergency appears to be shaping up. In the peripheral areas most of the residents are middle and low income group. The standards of networks may be kept as affordable and realistic for the particular income group as possible. Rajuk should try to formulate subdivision regulations. Again realistic approach rather than borrowed texts should be followed.

5. To facilities the rapid growth of the housing stock, the government must also revise and relax its building codes and regulations. The existing practice of issuing building permits to only permanent (pucca) building with adequate set back, etc must be relaxed. Thus the planning authorities may consider reformulating the building codes by recognizing temporary traditional type of structures as acceptable in the urban environment.

6. The existing master plan is no longer a valid instrument for planning control. A plan should address the vital issues related to all three important aspects of growth namely economic, physical and social should be structured on the basis of existing realities to encourage efforts that will improve the city's identity and enhance and tune up all positive resources to make the city safe and efficient in other words make it livable.

APPENDIX

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THESIS TITLE: A STUDY OF THE PROBLEMS OF URBAN DEVELOPMENT AT
THE PERIPHERAL AREAS OF DHAKA CITY

QUESTIONNAIRE

i) Interviewers Name:

ii) Date of Interview:

iii) Starting Time:

Card 1

A. INFORMATION CONCERNING HOUSEOWNER Household 2-4

Q1. Name of the houseowner:

Q2. Address of the houseowner:

Q3. Type of family: 5

(1) Nucleated:

(2) Joint:

(3) Extended:

Q4. Household size: 6-7

Q5. Household size (detail information about each of the number of the household):

Numbers	Age	Sex	Marital status	Level of Education	Relation with head of the Household	Occupation	Income per month
01							
02							
03							
04							
05							
06							
07							
08							
09							
10							
	8-27	28-37	38-47	48-57	58-77	5-14	15-24

Age:

0-4 = 01
 5-9 = 02
 10-14 = 03
 15-19 = 04
 20-24 = 05
 25-29 = 06
 30-34 = 07
 35-39 = 08
 40-44 = 09
 45-10 = 10
 50-54 = 11
 55-59 = 12
 60 & above = 13
 Not applicable = 14

Relation with head of the household

Self = 00
 Father = 01
 Mother = 02
 Wife = 03
 Son = 04
 Daughter = 05
 Daughter-in-law = 06
 Grand children = 07
 Brother = 08
 Sister = 09
 Not applicable = 10

		<u>Occupation</u>	
<u>Sex</u>		Service	= 1
Male	= 1	Business	= 2
Female	= 2	Owner of small	
Not applicable	= 3	Industries	= 3
		Retired	= 4
		Housewife	= 5
<u>Marital status</u>		Student	= 6
Married	= 1	Not applicable/	
Unmarried	= 2	under age	= 7
Widow	= 3	Unemployed	= 8
Widower	= 4	No answer	= 9
Separated	= 5		
Not applicable	= 6	<u>Income per month</u>	
No answer	= 9		
		Less than 1000	= 1
<u>Level of education</u>		1001-2000	= 2
University degree	= 1	2001-3000	= 3
Intermediate	= 2	3001-4000	= 4
Secondary	= 3	4001-5000	= 5
Primary	= 4	5001-7000	= 6
Illiterate	= 5	7001 and above	= 7
Not applicable/		Not applicable	= 8
under age	= 6	No answer	= 9
No answer	= 9		

Q6. Work place of these members:

Members	Work place/ Activity place	Distance from Residence (in mile)	Mode
1)		Less than 1/4" = 1	Rickshaw = 1
2)		1/4 to 1 = 2	Bus = 2
3)		1 to 2 = 3	Tempo = 3
4)		2 to 3 = 4	Car = 4
5)		3 to 5 = 5	Walking = 5
6)		5 and above = 6	Walking+Tempo = 6
7)		Not applicable = 7	Walking+ Rickshaw = 7
8)			Walking+Bus = 8
9)			Not applicable= 0
10)			
		25-34	35-44

Q7. For how long have you been in this area ?

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45-46

Q8. Why have you selected this area rather than any any other area in the city? (Accept maximum 3 answer)

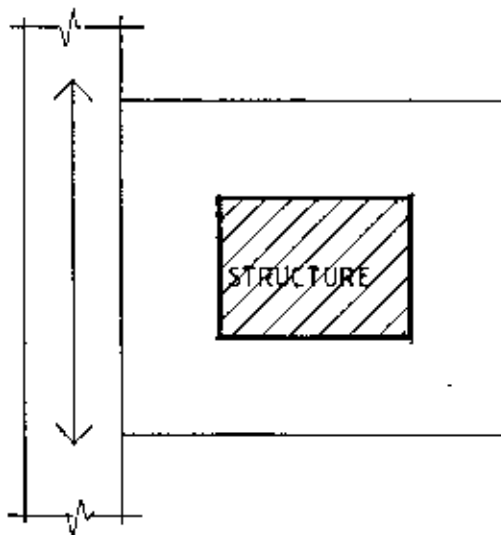
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47-49

- 1) Original settler
- 2) Relatives/friends are here
- 3) Near to the city centre
- 4) Near to the work place
- 5) Land price cheap
- 6) Others (specify)
- 7) No answer

Q9. Would you please provide us with the following informations of your present residence?

- 1) Layouts of structures
- 2) Plot size (existing)
- 3) Plinth area
- 4) Building stories
- 5) Building type
- 6) Access: Road
Type
Width
- 7) Note



Q10. 1) Is there any mixed landuse on your plot or in immediate surrounding area?

a) Yes

50

51

b) No

2) If the answer is yes than specify the type of mixing?

52

53

- a) Residential and commercial
- b) Residential and industrial
- c) Residential and health clinic
- d) Residential and cinema hall
- e) Not applicable

Q11. What is your tenure status:

1) Owner

54

2) Renter

Q12. If the house is rented:

1) How much is the rent?

55-58

2) Floor space?

59-62

Q13. Sanitary system:

- 1) Service latrine
- 2) Pit latrine
- 3) Septic tank
- 4) Shared

63

Q14. Existing utility services:

- 1) Piped water
- 2) Electricity
- 3) Gas
- 4) Telephone
- 5) Sewer line
- 6) No answer

64-68

B. INFORMATION PERTAINING TO THE IMMEDIATE SURROUNDING AREA

Q15. Which of these facilities are now present:

1) Municipal and utility services:

	Services	Yes/ No	Weather satisfied or not	Why not satisfied
a)	Access		Satisfied = 1	Not qualitative = 1
b)	Watersupply		Not satisfied = 2	Too far = 2
c)	Electricity		Don't know = 3	Unsatisfactory = 3
d)	Gas		Not applicable = 4	Don't know = 4
e)	Telephone		No answer = 9	Not applicable = 5
f)	Street lighting		No answer = 9	
g)	Garbage disposal			
h)	Sewerline			
i)	Drainage, etc.			

2) Community and recreational facilities which of these are present?

Facilities	Distance from Residence	Weather satisfied or not	Why not satisfied
a) Primary school	Less than 1/4 mile = 1	Satisfied = 1	Not qualitative = 1
b) Secondary school	1/4 to 1/2 mile = 2	Not satisfied = 2	Too far = 2
c) Daily Market	1 to 1-1/2 mile = 4	Don't know = 3	Not applicable = 3
d) Grocery/shopping	1-1/2 to 2 mile = 5	Not applicable = 4	Don't know = 1
e) Mosque	2 & above = 6	No answer = 9	Others = 5
f) Community centre	Not applicable = 7		Unsatisfactory = 6
g) Park	No answer = 9		No answer = 9
h) Medical centre			
i) Playground			
j) Post Office			
k) Police station			
l) Fire protection			
m) Family welfare centre			

23-35

36-48

49-61

Distance from Residence:	Weather satisfied or not:	Why not satisfied
Less than 1/4 mile = 1	Satisfied = 1	Not qualitative = 1
1/4 to 1/2 mile = 2	Not satisfied = 2	Too far = 2
1/2 to 1 mile = 3	Don't know = 3	Not applicable = 3
1 to 1-1/2 mile = 4	Not applicable = 4	Don't know = 4
1-1/2 to 2 mile = 5	No answer = 5	Others = 5
2 and above mile = 6		Unsatisfactory = 6
Not applicable = 7		No answer = 9
No answer = 9		

Q16. What are the main problems of community:

- a) Social problem (specify the problems)
- b) Environmental problem (specify the problems)
- c) Law and order problem (specify the problems)
- d) Lack of facilities (specify the problems)
- e) Insanitary condition (specify the problems)

Q17. Do the neighbours feel the problems in same way?

Q18. Have you and your neighbours done anything to solve the problem?

Q19. Is there any self organisation for your community development?

Q20. Who are the initiative persons engaged in solving these problems?

Q21. Do you think that the ward commissioner have been working hard for the improvement of the community?

C. INFORMATION RELATED TO LAND AND HOUSE

Q22. What is the ownership status of your plot?

- a) Single
- b) Joint

Q23. Is there any mixed land use exists on your plot?
If so specify the type of use:

Q24. How did you acquire this plot?

- a) By inheritance
- b) By exchange
- c) By purchase
- d) By other means

Q25. When did you purchase this plot?

Q26. How sub-division of land was done?

Q27. How access road was provided?

Q28. How the community facilities came into existence?

Q29. Who paid for land and other costs?

Q30. How much is the present price of land in this area?
Taka/katha _____

Q31. What was the previous use of your land?

Q32. What was the land level when you purchased the present plot?

- a) Fully above flood level
- b) Partially above flood level
- c) Below flood level
- d) Others, please specify

Q33. How was the construction of your house financed?

- a) Personal savings
- b) Selling family assets
- c) Institutional loan
- d) Others

Q34. When you started to construct your house?
Year _____

Q35. Did you get any help to construct and design your house?

Q36. Was your building layout approved by RAJUK?

a) Yes

b) No

Q37. Are you willing to improve your house or land?

a) Yes

b) No

c) Undecided

Q38. How will you improve? Give a precise description of the main problems and give your own suggestions to solve those problems:

Area Improvement:

a) What are the main problem of the area?

b) How they might be solved?

c) Who should take initiative?

d) How financing should be done?

e) How might be other community facilities be provided?

f) If necessary how additional land should be pooled?

