PROBLEMS AND CONSTRAINTS IN IMPLEMENTING MASTER PLANS: A CASE STUDY OF RAJSHAHI CITY

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PROBLEMS AND CONSTRAINTS IN IMPLEMENTING
MASTER PLANS: A CASE STUDY OF RAJSHAHI CITY

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DHAKA
CANDIDATES DECLARATION

It is hereby declared that this thesis or any part of it has not been submitted elsewhere for the award of any degree or diploma.

Signature of the Candidate

[Signature]

Farhana Khan Lima
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ABSTRACT

Rajshahi is the Fourth Metropolitan City in Bangladesh. The origin of the town date back to 1825 when the District Headquarter was shifted from Natore. In 1947, the town became a Divisional Headquarter. The city of Rajshahi is famous for its fine silk and juicy mango. The establishment of Municipality, College, Museum, University, Medical College had expedite the development of the city in the past. The first physical plan of the city was prepared by the UDD in 1968. But due to some constraints, the Plan was not implemented. After the independence of Bangladesh, the Government formed Rajshahi Town Development Authority in 1976 for the physical planning and development of Rajshahi City and its adjoining areas. The Rajshahi Development Authority prepared Master Plan in 1984. This was basically a land use type Master Plan which included the future growth direction of the city as well as its major road network, housing areas, commercial & industrial sites, recreational spots etc. The Master Plan also identified a number of projects in different sectors. Over the last 20 years the city of Rajshahi has been developed after this Master plan. During this period, a number of proposals of the Master Plan have been implemented while some of the proposals were not. The trend of imbalanced urbanisation in Bangladesh is one of the major reasons behind the non-implementation of Master Plans. However, in the case of Rajshahi, the geographic location of the city is a barrier to its economic development. Moreover, the weaknesses in preparation of plan, lack of proper planning practice, lack of time to time review, political influence, lethargy in project implementation, etc. are some the reasons behind improper implementation of the 1984 Master plan of Rajshahi. This research intends to study the master plans earlier prepared for the city of Rajshahi and to investigate whether the development of the city was accordingly or not. The research also aims to identify the causes behind non-implementation of the master plan and to recommend to overcome the shortcomings regarding the situation of Rajshahi City.

Thesis Title: Problems and Constraints in Implementing Master Plans: A Case Study of Rajshahi City

Thesis Supervisor: Dr. Roxana Hafiz
Associate Professor, Department of Urban and Regional Planning, BUET, Dhaka
## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADC</td>
<td>Additional Deputy Commissioner</td>
</tr>
<tr>
<td>ADP</td>
<td>Annual Development Programme</td>
</tr>
<tr>
<td>BCSIR</td>
<td>Bangladesh Centre for Scientific and Industrial Research</td>
</tr>
<tr>
<td>BUET</td>
<td>Bangladesh University of Engineering and Technology</td>
</tr>
<tr>
<td>BURP</td>
<td>Bachelor of Urban and Rural/Regional Planning</td>
</tr>
<tr>
<td>BWDB</td>
<td>Bangladesh Water Development Board</td>
</tr>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>CDA</td>
<td>Chittagong Development Authority</td>
</tr>
<tr>
<td>DIT</td>
<td>Dhaka Improvement Trust</td>
</tr>
<tr>
<td>DMAIUDP</td>
<td>Dhaka Metropolitan Area Integrated Urban Development Project</td>
</tr>
<tr>
<td>DMUDP</td>
<td>Dhaka Metropolitan-area Development Plan</td>
</tr>
<tr>
<td>DPHE</td>
<td>Department of Public Health Engineering</td>
</tr>
<tr>
<td>DTW</td>
<td>Deep Tube well</td>
</tr>
<tr>
<td>ECNEC</td>
<td>Executive Committee of National Economic Council</td>
</tr>
<tr>
<td>HSD</td>
<td>Housing and Settlement Directorate</td>
</tr>
<tr>
<td>KDA</td>
<td>Khulna Development Authority</td>
</tr>
<tr>
<td>MPP</td>
<td>Masters of Physical Planning</td>
</tr>
<tr>
<td>MT</td>
<td>Metric Ton</td>
</tr>
<tr>
<td>MURP</td>
<td>Masters of Urban and Regional Planning</td>
</tr>
<tr>
<td>NOC</td>
<td>No Objection Certificate</td>
</tr>
<tr>
<td>PCP</td>
<td>Project Concept Paper</td>
</tr>
<tr>
<td>PP</td>
<td>Project Proforma</td>
</tr>
<tr>
<td>PWD</td>
<td>Public Works Department</td>
</tr>
<tr>
<td>RAJUK</td>
<td>Rajdhani Unnayan Kartripakkah</td>
</tr>
<tr>
<td>RCC</td>
<td>Rajshahi City Corporation</td>
</tr>
<tr>
<td>RDA</td>
<td>Rajshahi Development Authority</td>
</tr>
<tr>
<td>RHD</td>
<td>Roads and Highways Department</td>
</tr>
<tr>
<td>RTDA</td>
<td>Rajshahi Town Development Authority</td>
</tr>
<tr>
<td>SMA</td>
<td>Statistical Metropolitan Area</td>
</tr>
<tr>
<td>TI Act</td>
<td>Town Improvement Act</td>
</tr>
<tr>
<td>UDD</td>
<td>Urban Development Directorate</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNSF</td>
<td>United Nations Security Fund</td>
</tr>
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<td>UNCHS</td>
<td>United Nation Centre for Housing and Settlement</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgement</th>
<th>i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>List of Abbreviation</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>viii</td>
</tr>
<tr>
<td>List of Maps</td>
<td>ix</td>
</tr>
</tbody>
</table>

## Chapter 1: INTRODUCTION

<table>
<thead>
<tr>
<th>1.0</th>
<th>Background of the Study</th>
<th>61</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Objectives</td>
<td>62</td>
</tr>
<tr>
<td>1.2</td>
<td>Justification of the Study</td>
<td>63</td>
</tr>
<tr>
<td>1.3</td>
<td>Methodology</td>
<td>63</td>
</tr>
</tbody>
</table>

## Chapter 2: GENESIS OF PHYSICAL PLANNING IN BANGLADESH

<table>
<thead>
<tr>
<th>2.0</th>
<th>General</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Background of Physical Planning in Bangladesh</td>
<td>8</td>
</tr>
<tr>
<td>2.2</td>
<td>Creation of Development Authority</td>
<td>10</td>
</tr>
<tr>
<td>2.3</td>
<td>Establishment of Urban Development Directorate (UDD)</td>
<td>12</td>
</tr>
<tr>
<td>2.4</td>
<td>Master Plans at Metropolitan Level: Experiences in Different Cities</td>
<td>14</td>
</tr>
<tr>
<td>2.5</td>
<td>Planning for Housing Estates in Different Districts</td>
<td>20</td>
</tr>
<tr>
<td>2.6</td>
<td>Physical Planning at District Level</td>
<td>22</td>
</tr>
<tr>
<td>2.7</td>
<td>Physical Planning at Upazilla Level</td>
<td>22</td>
</tr>
</tbody>
</table>

## Chapter 3: THE URBAN DEVELOPMENT PATTERN OF RAJSHAHI CITY

<table>
<thead>
<tr>
<th>3.0</th>
<th>General</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Location of the City</td>
<td>23</td>
</tr>
<tr>
<td>3.2</td>
<td>Physical Characteristics of Rajshahi Region</td>
<td>23</td>
</tr>
<tr>
<td>3.3</td>
<td>Historical Background of the City</td>
<td>26</td>
</tr>
<tr>
<td>3.4</td>
<td>Physical Growth of the City</td>
<td>28</td>
</tr>
<tr>
<td>3.5</td>
<td>General Administration of Rajshahi</td>
<td>29</td>
</tr>
<tr>
<td>3.6</td>
<td>The History of Rajshahi University</td>
<td>31</td>
</tr>
<tr>
<td>3.7</td>
<td>Communication</td>
<td>32</td>
</tr>
</tbody>
</table>
3.8 Economic Status of Rajshahi
3.9 Rajshahi City as an Urban Centre
3.10 Upgradation of the Municipality into City Corporation
3.11 Establishment of Development Authority and Physical Planning of the City
3.12 Stakeholders of the City of Rajshahi
3.13 Preparation of Master Plan for Rajshahi City

Chapter 4: IMPLEMENTATION STATUS OF PROPOSALS

4.0 General
4.1 Review of 1968 Master Plan
4.2 Implementation Status of 1968 Master Plan
4.3 Review of 1984 Master Plan
4.4 Implementation Status of the Plan Proposals
4.5 Overall Implementation of the Proposals
4.6 Change in land use Pattern in Rajshahi City (1980-2003)

Chapter 5: CAUSES OF IMPROPER IMPLEMENTATION

5.0 General
5.1 Deficiencies of Plan Preparation
5.2 Review of the Plan
5.3 Legislative Power of the Planners
5.4 Lengthy Procedure of Project Approval
5.5 Political Interference in the Change of Land Use Proposals
5.6 Unbalanced Urbanisation and Trend of Development
5.7 Geographic Location of the City
5.8 Absence of Proper Planning Practice
5.9 Overlapping of Activities

Chapter 6: CONCLUSION

6.0 Summary Findings
6.1 Recommendation
6.2 Conclusion

APPENDIX-A
APPENDIX-B
APPENDIX-C
LIST OF TABLES

Table 2.1  Enumerated Population of Bangladesh and Growth Rates, 1901-1974  08
Table 2.2  Life-Time Net Migrants by Districts, 1951-1974  09
Table 3.1  Major Events in the History of Rajshahi  26
Table 3.2  Mail/Express Train Services Operating 5 Routes  33
Table 3.3  Local/Mixed Train Services Operating 5 Routes  33
Table 3.4  Inter-City Train Services Operating 5 Routes  34
Table 3.5  Agriculture Production of Rajshahi in National Context  37
Table 3.6  List of Agency Involved in Different Sectors in Rajshahi City  48
Table 4.1  Present and Upcoming Housing Sates in Rajshahi City  54
Table 4.2  Scope of Work Under Rajshahi Drainage Master Plan Project  58
Table 4.3  Major Commercial Area/Markets in Rajshahi City  61
Table 4.4  Implementation Status of the Road Proposals made in 1984 Master Plan.  63
Table 4.5  Comparative Statement of 1984 Master Plan Proposal and its Implementation Status  67
Table 4.6  Change in land use Pattern in Rajshahi City (1980-2003)  70
Table 5.1  Chief Town Planner and Assistant Town Planners of RDA (1977-2003)  73
Table 5.2  Duration of Project Preparation.  75
Table 5.3  On-going and Up-coming Projects of RDA  76
Table 5.4  Distribution of SMA Population During the Period 1981, 1991 and 2001  79
LIST OF MAPS

Map 2.1  Some Early Forms of Planning Concepts in Bangladesh
Map 2.2  DMDP Structure Plan
Map 2.3  Chittagong Structure Plan
Map 2.4  Khulna Master Plan, 1961
Map 3.1  Location of Rajshahi
Map 3.2  Growth Pattern of Rajshahi City
Map 4.1  Outline Development Plan of Rajshahi, 1968
Map 4.2  Land Use Proposal of 1984 Master Plan
Map 4.3  Location of Proposed Recreational Areas
Map 4.4  Location of Proposed Industrial Sites
Map 4.5  Location of Proposed Road Network
Chapter 1

INTRODUCTION
Chapter 1: INTRODUCTION

1.1 Background of the Study

A Master Plan is a comprehensive, long-term plan (for 20-25 years) intended to guide the growth and development of a city, town or region and to make it livable and environmentally sound. It is also prepared for the improvement of an old city or for a new town to be developed and aims at controlling the future growth of a town, city or region. A Master Plan arranges the pattern of a city or town in such a way that it is sustainable for the future generation. It also controls the haphazard and unplanned growth of a city, town or region.

Initiatives were taken for the planned development of the towns and cities of Bangladesh and Master Plans were prepared in this regard. In reality, however, in most cases Master Plans were not strictly followed during the development of towns or cities. This is due to various limitations in the implementation mechanisms. The other fact is that Master Plans have been drawn for a period of 20 - 25 years and there were no in built mechanism to adapt to severe social, political, economic changes. In fact, there was no scope for reviews and improvement in the Master Plan to accommodate any drastic population change. After the creation of Bangladesh in 1971, the pressure on the urban centres increased gradually, specifically due to migration of rural people to the large cities like Dhaka, Chittagong, Khulna and Rajshahi.

This research takes up Rajshahi as a case study as this is the smallest among the four major cities of Bangladesh. Rajshahi, before the partition of India in 1947, was a major urban center. After partition, Rajshahi located at the north-western side of Bangladesh almost along the border of India and Bangladesh, became important as a divisional
headquarter. Rajshahi is now a far-flung city with inadequate and inefficient communication routes and other deficiencies. Communication channels have been proposed to connect Rajshahi with other parts of the country. But most of this proposal could not be implemented due to lack of adequate finances and proper initiatives.

Two Master Plans were drawn for Rajshahi, one in 1968 and the other in 1984. Despite having two Master Plans Rajshahi did not develop according to the directions proposed. For example, the 1984 Master Plan forecasted an increase in the population to 4,50,000 (four lakh fifty thousand) in 2000, whereas according to the Population Census 2001, the population stood at 3,85,000 only. The other major cities (i.e. Dhaka, Chittagong and Khulna) were registering rapid increase in population whereas Rajshahi have not attained the forecasted level in 16 years. Unplanned residential areas developed in areas where other uses have been proposed. The 1984 Master Plan did not have a specified time frame within which to execute the Plan. The concerned authority is now unable to conceive when the plan period ends and propose a new Master Plan to replace the old one. These are some among of the various problems that are evident in the development plans of Rajshahi. This research intends to study the master plans earlier prepared for the city of Rajshahi and to investigate whether the development of the city was accordingly or not. The research also aims to identify the causes behind non implementation of the master plan and to recommend to overcome the shortcomings regarding the situation of Rajshahi City.

1.2 Objectives
The objectives of the present research are stated as follows,

(a) To review the Master Plans prepared for Rajshahi in 1968 and 1984.
(b) To compare and review existing land use pattern with that proposed in the Master Plans of Rajshahi.

(c) To identify the gaps or deviations between the proposed plans and the existing development pattern.

(d) To identify reasons for non-implementation or partial implementation of the Master Plans of Rajshahi.

(e) To suggest policies and measures to rectify the problems presently encountered in order to enhance development of Rajshahi at present and in the future.

1.3 Justification of the Study

The present research has been conducted with the anticipation that it would make an understanding of the causes behind non-implementation of Master Plans in Bangladesh. It is expected that the study would clearly identify the existing powers given to the development authority for preparation and implementation of Master Plan. Moreover, it is expected that the study would help to find out the shortcomings during preparation of a Master Plan. Moreover, it may also serve as guidelines for further studies relevant to the subject.

1.4 Methodology

Methodological issues of this study consist of operational definition of concepts. Procedures adopted for the collection of data and relevant information. To study implementation status of Master Plan, it is necessary to know the background of its preparation and the status of the agency involved in preparation of the plan. The causes
behind the failure or improper implementation or non-implementation of the Master Plan also needs to be studied. To conduct this study an appropriate research approach has been adopted conforming to the requirements of the objectives.

1.4.1 Selection of the study

For the present study, Rajshahi city has been selected as the study area. The city of Rajshahi is the fourth Metropolitan City of the country and the city was intended to be guided by Master plan prepared in the state year. But due to various reasons the plan could not be implemented properly. As a result the land use of the city has not developed in the directions proposed by the Plans. For this reason this research has been taken up for a thorough investigation of the causes of failure and/or non-implementation of Master Plans for Rajshahi City.

The research is going to analyze the Master plans prepared in 1968 and in 1984 respectively by the Urban Development Directorate (UDD) and Rajshahi Development Authority in association with the UDD and United Nations Centre for Housing and Settlements (UNCHS). Moreover this particular issue has been selected for a number of reasons. Firstly, the Master Plan prepared in 1984, for the city of Rajshahi was not prepared according to the type prescribed in the ordinance of Rajshahi Development Authority. Secondly, the Master Plan prepared in 1968 by the UDD was without proper survey and proper implementation indication. Thirdly, the cause behind improper implementation of the Master Plan in the City of Rajshahi can easily be identified by studying the existing pattern of land use and the land use pattern proposed in the Master Plans. And finally the concerned development authorities and the agencies involved in
preparation of Master Plan would be able to take necessary measures during preparation and implementation of a Master Plan properly.

1.4.2 Methodological approach of the research

One of the objectives is to review and study the Master Plans prepared for Rajshahi in 1968 and 1984 respectively by Urban Development Directorate (UDD) and Rajshahi Development Authority (RDA). To fulfil this objective, relevant documents maps have been collected from the UDD and the RDA. Another objective is to compare and review the existing land use pattern with that of in 1984 Master Plan proposal. To achieve this objective information from both primary and secondary sources were used. The proposed land use in 1984 Master Plan was reviewed from the maps and documents collected from RDA. While the present land use has been reviewed from the existing land use survey conducted by Rajshahi Master Plan Project (2001-2020). The causes behind improper implementation of the Master Plan were identified through exchange of views with the officials of RDA & RCC and after reviewing different documents.

1.4.3 Review of Acts/Ordinances, Documents

For the purpose of the present research, Acts/Ordinance like Rajshahi Town Development Authority Ordinance 1976, Chittagong Development Ordinance 1959, Khulna Development Authority Ordinance 1961, Town Improvement Act 1951, Rajshahi City Corporation Act 1987. RTDA Ordinance was reviewed to know the status of Rajshahi Development Authority in preparation and implementation of Master Plan for the City. Different field of activities of the authority were also known. CDA & KDA
Ordinance and Town Improvement Act were reviewed to compare the power to prepare Master Plan of Chittagong Development Authority (CDA), Khulna Development Authority (KDA) and Rajdhani Unnayan Kartripakkah (RAJUK) with that of Rajshahi Development Authority (RDA). The Rajshahi City Corporation Act was also reviewed to identify the co-ordination and conflict between the activities of Rajshahi City Corporation and Rajshahi Development Authority. Documents like RDA board meeting resolution were reviewed which helped to know about the irregularities in implementation of the Master Plan and the pressure of political influences that RDA had encountered.

The Rajshahi Master Plan Report of 1984 was reviewed to know about the Plan type and the proposals made in the plan. The Interim Report of Rajshahi Master Plan (2001-2020) has also been reviewed to know the present land use of the city as well as the plan typology presently being prepared. Documents such as the "Physical Planning Progress in East Pakistan", helped a lot to gain knowledge on the history of physical Planning in Bangladesh.

1.4.4 Review of Land Use of Rajshahi City.

The 1984 Master Plan Maps were reviewed to identify proposals adopted for the development of the city. The existing land use of the city of Rajshahi was also reviewed from the recent completed physical feature and land use survey made by the Rajshahi Development Authority. This review provision has helped a lot to understand the change in land use pattern over the period after the completion of 1984 Master Plan. The revision has also identified the gaps between proposed and existing land use.
1.4.5 Informal Interview and Exchange of Views

The concerned officials of RDA and RCC were interviewed with a view to find out the anomalies in proper implementation of the Master Plan prepared in 1984. During the interview some important issues came out in the light of the experience of the concerned professionals. As the professionals are directly related/responsible in implementing the Master Plan, they were able to inform the facts behind the improper implementations.

A number of senior planners shared their experiences and helped to formulate ideas regarding this research. The main motive behind preparation of 1968 Master Plan for the City of Rajshahi came to light during discussion with an Ex-director of the Urban Development Directorate (UDD). A number of causes regarding the importance of people's participation during plan preparation were emphasized by an expert of the Rajshahi University.
Chapter 2

GENESIS OF PHYSICAL PLANNING IN BANGLADESH
Chapter 2: GENESIS OF PHYSICAL PLANNING IN BANGLADESH

2.0 General Statement

The history of planned development of settlements in Bangladesh dates back to 5th A.D when Pundunagar (Mahastangarh) was established. The other planned development during the ancient period includes Paharpur at 8th Century A.D, Mainamoti at 10th Century A.D. Though all of the settlements during the early period were not large in scale, but these are the signs of early planned development in this region. The urgency of planned development in this region felt during the Pakistan Period. It was started with some subdivision plans to resettle Muslim refugees coming from India. In the later stage till recently a number of efforts were taken for the planned development of cities and towns in Bangladesh specifically Rajshahi. This part of the study deals with the history and trend of physical planning in Bangladesh (refer to Map 2).

2.1 Background of Physical Planning in Bangladesh

Bangladesh is still purely an agricultural region. During the Mughal period, Dhaka was the only centre, which had developed certain urban characteristics. Most of the urban dwellers belonged to the Mughal army, the artisans and service population retained by the rulers around them. Chittagong at the time was a small port and trade centre, occasionally visited by the Arabs. Portuguese and English traders.

Table 2.1 Enumerated Population of Bangladesh and Growth Rates, 1901-1974

<table>
<thead>
<tr>
<th>Census Date</th>
<th>Enumerated Population (in thousands)</th>
<th>Annual Growth Rate (%)</th>
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<tr>
<td>1901, March 1</td>
<td>28,928</td>
<td>-</td>
</tr>
<tr>
<td>1911, March 10</td>
<td>31,555</td>
<td>.866</td>
</tr>
<tr>
<td>1921, March 18</td>
<td>33,254</td>
<td>.526</td>
</tr>
<tr>
<td>1931, February 26</td>
<td>35,604</td>
<td>689</td>
</tr>
<tr>
<td>1941, March 1</td>
<td>41,991</td>
<td>1.663</td>
</tr>
<tr>
<td>1951, March 1</td>
<td>42,663</td>
<td>1.930</td>
</tr>
<tr>
<td>1961, February 1</td>
<td>50,840</td>
<td>2.642</td>
</tr>
<tr>
<td>1974, March 1</td>
<td>71,479</td>
<td>-</td>
</tr>
</tbody>
</table>

Map: 2.1 SOME EARLY FORMS OF PLANNING CONCEPTS IN BANGLADESH

MANAMATI

Comilla

EXCAVATION AT GOKUL

Bogra

Hindu Temple remains 5th to 12th Century A.D.

PLAN OF PAHARPUR MONASTERY

MAHAStANGAR

Bogra

Hindu Civilization
5th to 12th Century A.D.

Buddhist Monastery
8th Century A.D.
During the later part of the 18th century when the British rule was established in Bengal, the centre of attraction of trade, commerce, industry and administration shunted from Dhaka to Kolkata and the region now comprising Bangladesh was made to turn in to an agricultural land and a raw-material supply-base for the development of industry in and around Kolkata. Up to the beginning of World War-II, there appeared no functional problems of the towns that grew up to meet the socio economic requirements of the age and to satisfy the then mode and means of communication and the served their purpose usefully.

World War-II coupled with the famine of 1943 really brought the first wave of large-scale migration (see Table: 2.1) from countryside to the urban areas. Most of these immigrants instead of returning to the countryside stayed in the urban areas for better employment opportunities. This trend of inflow continued causing an increase in urban population and started posed problems of accommodations and other urban amenities.

Table 2.2 Life-Time Net Migrants by Districts, 1951-1974

<table>
<thead>
<tr>
<th>Districts</th>
<th>Net Migrants</th>
<th>1951</th>
<th>1961</th>
<th>1974</th>
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<tr>
<td></td>
<td></td>
<td>+20,470</td>
<td>+75,381</td>
<td>+132,409</td>
</tr>
<tr>
<td>Dhaka</td>
<td></td>
<td>+86,473</td>
<td>+141,635</td>
<td>+62,029</td>
</tr>
<tr>
<td>Bogra</td>
<td></td>
<td>+647</td>
<td>-11,577</td>
<td>-16,488</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>+28,182</td>
<td>+66,651</td>
<td>+60,887</td>
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<tr>
<td>Patna</td>
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Note: + indicates net in-migrants to the districts
- indicates net out-migrants from the districts

Sources: 1951, 1961: Census of Pakistan, 1961, Vol. 2, East Pakistan, Table 8, pp. II-116 to II-137
1974: Census Data, Table-9
1974: Bangladesh Population Census Report, 1974, Bangladesh, Table 24, pp. 25
After the partition of British India in 1947, a large number of refugees and persons connected with administration, commerce and industry with their dependents started to flow into the urban centres of Bangladesh (then East Pakistan) in successive waves mainly from the adjoining areas of the province in such short intervals that it became extremely difficult even to accommodate them within the existing urban structure not to speak of providing them with proper amenities and facilities.

In addition, Government had to take up various development works throughout the province, resulting in the establishment of new offices for the Government as well as for autonomous bodies and construction of staff quarters for them. Simultaneously commercial and industrial activities started to gather momentum creating job opportunities in the existing urban centres causing influx from rural areas. All these factors combined together created insanitary living conditions and acute congestion in the already overcrowded areas of the towns. Whatever shelter and houses people created within the town and in their fringes in absence of proper planning, only led to the creation of slums and contributed towards unplanned extension of the towns.

2.2 Creation of Development Authority

For planning and development of the metropolitan areas Government created three statutory bodies, namely Dacca Improvement Trust (DIT), Chittagong Development Authority (CDA) and Khulna Development Authority (KDA). These three areas together accounted for about 47 percent of the total urban population of the province as in 1961. Besides this, in order to rehabilitate the refugees and to provide housing for the public Government of East Pakistan created the Housing Wing in 1958, under the Works Department. The function of the Housing Wing was to meet the demand of housing for the refugees and the public that included
preparation of plans for housing estates which were or less extension of existing urban
areas for the construction of low cost houses for the refugees and making provision of
plots for the public. While doing so the physical planners realised that comprehensive
planning for the existing urban areas as well as for the new ones to come were needed
to prevent the haphazard growth that was likely to occur due to the impact of
development activities

In consideration of this conviction, Town and Country Planning Scheme was
prepared by the Housing Wing of the Government with the objects:

(i) To prepare plans for the Municipal areas and other towns suggesting the
future land needs and indicating the location of public facilities, utilities
and institutions required.

(ii) To conduct studies relating to regional planning for the province dealing
with the problems directly arising from increasing industrialisation and
concentration of population.

(iii) To train personnel in the field of physical planning from various
disciplines, such as, Civil Engineering, Architecture, Geography,
Economics, Sociology and Law to meet the requirements of planners.

According to the objectives of the scheme Master Plans for a few district
Headquarters were prepared. The Housing Wing took up two more schemes, namely:

(i) Survey, investigation and planning of rural housing

(ii) Preparation of legislation for town and country planner

The first one was meant for village planning and development. It envisaged:

(i) To enable the villagers to live in good houses at moderate costs with
appropriate sanitary facilities, spaces for domestic animals etc.
(ii) To educate rural people on better living conditions through the demonstration of economic houses built mainly of local materials, improvement of indigenous method of water supply and sanitation, and, proper siting of civic amenities like dispensary, school, community centre, etc. and

(iii) To enable the villagers to live in a happy and healthy environment and to solve their problems through self-help

2.3 Establishment of Urban Development Directorate (UDD)

With the view of urgency for creation of a separate Physical Planning Organisation, the Government of East Pakistan created a new organisation, called Urban Development Directorate (UDD) within the Works Power and Irrigation Department in July 1965, and transferred all the incumbents working in the Town and Country Planning and Survey, Investigation and Planning of Rural Housing schemes of the Housing Wing to this newly created Directorate. The objectives of Urban Development Directorate were,

(i) To advise the Government on matters of policy relating to urbanisation, land use, and land development

(ii) To prepare and coordinate regional plans, master plans, detailed layout and site plans for the existing as well as the new urban centres excluding the areas covered by the present town development authorities of Dhaka, Chittagong and Khulna;

(iii) To undertake socio-economic research and collection of data for determination of the location and pattern of future urban development

(iv) To prepare programme for urban development regarding selection of sites, acquisition of land, reclamation of land
(i) To secure approval of programmes and plans and obtain necessary funds from the Government of any other agency approved by the Government.

(ii) To advise the existing urban development authorities on their operations at their request.

On the other hand the UN Special Fund Assistance to Urban Development Directorate is available for a period of four and half years. The Special Fund Project comprises:

(i) Research to provide the basis for policy decisions about the location of major industries, urban complexes and sites to be reserved, acquired and developed.

(ii) Studies on the availability of suitable land for the localities thus selected, the cost of site formation and the relation of the new urban centres to transport facilities. This study will take into account the problems of flood control.

(iii) Preparation of plans based on field survey and framing and implementation of recommendations concerning land acquisition and design. This stage may involve the study of site formation by poldering or reclamation by urban canal system.

The function and scope of work of this Directorate has been enlarged over what was stipulated in the "Town and Country Planning Scheme" by entrusting this Directorate also with the responsibility of co-ordinating all the physical development activities of the province. Having felt the necessity of a high powered committee to coordinate all the physical development activities in the province the government formed the Urban Development Council headed by the Additional Chief Secretary (Development) of the Province. Ponder
Due to lack of qualified professional and technical personnel the full strength of the Directorate could not be achieved. Yet within the limited resources of men and materials this Directorate has staged an exhibition under the advice of the first Project Manager provided by the UNSF, on the basis of the facts and information collected from various sources the Directorate worked on the following programmes.

(i) Collection of basic information and maps for establishing a Data Bank,

(ii) Conduction research to formulate a strategy for the preparation of an overall physical development plan for the province,

(iii) Preparation of Master Plans for the existing and potential urban areas and industrial complexes in the province,

(iv) Preparation of interim plans of the municipal areas pending finalisation of Master Plans to enable Municipal Committees to control developments under the Building Construction Act, 1952 and subsequent amendments thereof.

(v) Preparation of a Comprehensive Town and Country Planning Act for the province

2.4 Master Plans at Metropolitan Level

2.4.1 The Dhaka experience

In modern times we can trace the concern for an orderly and planned growth of Dhaka back to the late 1950's, when the capital was but just one-sixth of its present size. Here is a review on the planning experience over this period of dramatic change and attempt to piece together a picture of how Dhaka grew, why it grew in the way it did, and how effective past planning has been in directing this growth.
The 1959 Master Plan

At the time of plan preparation, the population of the former DIT area was a fraction over one million (1,025,000 person). The planners' brief was to prepare a 20-year plan for a Dhaka, which was capital of then East Pakistan, a modest size city with what appeared to be a modest potential for growth. The planners assumed a 40% population increase over the 20-year plan period, with a 1970 target figure of 1.47 million.

In the Master Plan of 1959 planners looked to optimising higher flood free land for future expansion. Because of the established pattern of flooding, this directed their attentions northward. New expansion focused on three locations north of the then urbanised area; Mirpur, Gulshan/Banani and Tongi/Uttara. In the south, more modest expansion onto higher land was indicated east and west of Narayangunj. The three northern areas together were projected to accommodate 80 percent of the housing demand emanating from the estimated population increase.

In detail, the 1959 plan contained much more than is briefly described above. Nonetheless its salient features may be summarised as follows:

- Expansion was to be mainly northward into flood-free land.
- Expansion was to take the form of relatively self-contained new satellite towns.
- Aims implicit in the satellite town approach included reducing pressures on the existing urban area, and to some extent lowering prevailing 'high' densities.
- Expansion area development was assumed to be within the domain of the public sector and to be supported by "generous financial assistance" from government.
The 1981 Strategic Plan

After the independence in 1971 the importance of Dhaka changed in a flash. This situation made the recommendations for the preparation of a new long-term urban development strategy for the capital in 1976. The planners who set to work on this task in mid-1979 were doing so at the twenty-year conclusion of the 1959 Plan.

In spatial terms the 1959 planners would easily have recognised their 'planned' city, despite the fact that expansion to the north had not quite reached the limits they had drawn. The big difference was that the area they had planned for one and a half million people now contained nearly three times that number.

As with the earlier plan the 1979 planners were asked to look twenty years ahead. Unlike the earlier planners, however, they were preparing an urban development strategy for metropolitan Dhaka which was to be the first step in an even more comprehensive system of planning. After considering a 'long-list' of growth options, essentially for the post-1990 period, Dacca Metropolitan Area Integrated Urban Development Project (DMAIUDP)-FINAL REPORT, 1981, reduced the final selection to three alternatives. These were:

A. Comprehensive Flood protection
B. Peripheral Growth
C. Northern Expansion

Alternative B was dismissed largely on the grounds that, with flooding constraints, it would have insufficient capacity to absorb the projected population growth. It is worth noting, however, that in the normal course of events this 'uncatered' for growth would be absorbed via increased densification of the existing urban area. This was, however, counter to one of DMAIUDP's major aims, which was to establish a strategy of dispersal, hence this alternative's dismissal. The final
choice was between A and C, alternate ways of overcoming flood risk. the former by implementation of a comprehensive flood protection strategy, the latter by directing expansion onto flood-free land to the north.

**Dhaka Structure Plan**

The Rajdhani Unnayan Kartripakkha (RAJUK) under the Ministry of Housing and Public Works had taken initiative to prepare Structure Plan for the Capital. This effort was supported by International and National Consultants provided under subcontract by UNCHS. The overall objectives of the project were,

- The preparation of integrated Development plans and priority sectoral plans;
- The installation of sustainable capabilities in RAJUK for preparation and implementation of metropolitan plans with their associated management, promotional and regulatory support functions.
- The upgrading of capacities of RAJUK and related national training, research and advise institutions.

The project's planning component was presented as a package of plan outputs which collectively address Dhaka's urban planning issues at three geographic levels, sub-regional, urban and sub-urban. The Dhaka Metropolitan Development Plan (DMDP) was comprised of three components. (Refer to Map 2.2)

- Urban Area Plan for 10 years (1995-2005) and

The new form of plan package was prepared with a view to replace the land use Master Plan of 1959 and development control of 390 sq mile were considered under the project.
RAJUK is still considering 1959 Master Plan proposal for the development control of the capital city. The other problem is that the authority refers back to the 1959 plan whenever there is a problem with the new plan. This creates a lot of confusion and contradiction during implementation and development.

2.4.2 Chittagong Experience

The second largest city of the country had its first Master Plan in 1961. This Plan was prepared soon after the establishment of Chittagong Development Authority (CDA). The 1961 Master Plan was basically broad land use to control the development of the city.

Chittagong Metropolitan Master Plan (CMMP) replaced the 1961 Master Plan in 1995. This was a part of a UNDP Financial technical Assistance project (EGD/88/055) whose aim was to strengthen the ability of Bangladesh Govt. to plan and manage the development of its cities.

A comprehensive set of plans was prepared for Metropolitan Chittagong. The set of plans consists of a Metropolitan Master Plan and a series of local area or Detailed Plans. Chittagong Metropolitan Master Plan comprises two elements (Refer to Map 2.3)

- A Structure Plan (1995-2015) for Metropolitan Chittagong. The purpose is to provide overall strategy for Urban Development Metropolitan Chittagong.
- Urban Development Plan (1995-2005) for the existing urban area of Chittagong and its immediate surroundings. The plan is to guide the area where urban development activity is to be concentrated.
2.4.3 Khulna Experience

The third largest metropolitan city of the country experienced its first Master Plan in 1961. Here is an overview on physical planning of the city of Khulna of last four decades.

1961 Master Plan

In the backdrop, increasing urbanization, it was felt by the decision makers in the late fifties that, Khulna city should be developed in an organized manner through proper planning. The outcome was the inception of KDA and subsequent formulation of Khulna City Master Plan in 1961. (Refer to Map 2.4)

The plan proposals were prepared in a macro framework emphasizing on the physical setting of the plan area. The plan lacked in broad detailed and study analysis. Most of the proposals were set in the form of outline instead of programmes and projects. The proposals were made in the four sets of plans, land use development, basic infrastructure and implementation plan. However, the Master Plan, which was framed for a period of 20 years, lost its validity in 1981.

In 1981, an attempt was made to revise the old Master Plan, prepared in 1961. Several studies were conducted in order to make such revisions. However, due to unknown reasons the process of revision could not be completed. The process was regenerated again after one and a half decade and the effort was taken in 1995 to prepare Structure Plan, Master Plan and Detailed Area Plan for the city of Khulna.

The new Plan, which was approved by the Government in 2002, was prepared for an area of 419.66 sq km (103,744 acres) (KMDP Interim Report, 1998). The main components of the Plan were,

- A Strategic Plan for a period of 20 years.
- A Structure Plan for a period of 10 years
- Master Plan
- Detailed Area Plan for some selected part of the city.
2.4.4 Rajshahi Experience

The fourth Metropolitan City of the country was declared as Metropolitan city in 1984. The city had its first Master Plan back in 1968. The Urban Development Directorate (UDD), of the Government of East Pakistan, prepared the plan. This was basically a land use Master Plan indicating broad category of land use. The 1968 Master Plan for the city of Rajshahi did not had much scope to be implemented.

The 1968 Master Plan was replaced by the Master Plan prepared by RDA in association with UDD-UNDP in 1984. This was also a land use type Master Plan with indication of Road Network and gross land use category. The Master Plan was completed under the supervision of Rajshahi Development Authority. The time period of the Master Plan ended in 2000.

RDA took initiative to prepare a new Master Plan for the city of Rajshahi in 2001. The new Master Plan of the city is a package of Structure Plan, Master Plan and Detailed Area Plan. The Master Plan is expected to be completed by 2004. The Plan will cover an area of 322 sq km.

2.5 Planning for Housing Estates in Different Districts

During the Pakistan Period in 1958, the Government of East Pakistan took a comprehensive program for development of urban land and construction of public housing (including refugee housing) in various urban areas of the province. These programs were mainly to rehabilitate the large number of displaced families. These schemes were envisaged the construction of nucleus houses and development of plots for the refugees with the provision of ancillary facilities and civic amenities required for the prospective dwellers. These schemes further envisaged to develop some plots for distribution among the local public of various income groups to achieve social
integration of the displaced persons with the local inhabitants. For this purpose government decided to establish new residential Neighborhood or Housing Estates on suitable sites within or at the outskirts of the urban area.

Here is a list of the Major Housing Estates established at that period in different areas of Bangladesh. (Refer to Appendix A for Maps)

(i) Mohammadpur Neighborhood, Dhaka.
(ii) Mirpur Section No. 10, Mirpur, Dhaka.
(iii) Mirpur Section No. 10, Mirpur, Dhaka.
(iv) Mirpur Section No. 10, Mirpur, Dhaka.
(v) Mirpur Section No. 10, Mirpur, Dhaka.
(vi) Lalmata Housing Estate, Dhaka.
(vii) Firoz Shah Colony, Chittagong.
(viii) Halishahar Neighborhood, Chittagong.
(ix) Khalisapur Housing and Industrial area, Khulna.
(x) Dinajpur Housing Estate.
(xi) Mymensing Housing Estate.
(xii) Chandpur Housing Estate, Chandpur.
(xiii) Comilla Housing Estate, Comilla.
(xiv) Kushitia Housing Estate, Khushita.
(xv) Sajdpur Housing Estate.
(xvi) Parbatipur Housing Estate.
(xvii) Rajshahi Housing Estate, Rajshahi.
2.6 Physical Planning at District Level

After the formulation of Urban Development Directorate (UDD), the government had taken initiative to prepare Master Plans for a number of District Towns. But in most of the cases, the plan proposals were made without proper survey and investigation. The districts for which Master Plans were prepared are including Jalokhati, Chapai Nawabgarj, Barguna, Kushila, Comilla, Patuakhali, Chandpur and Rajshahi. (Refer to Appendix B for Maps)

2.7 Physical Planning at Upazilla Level.

With a view to decentralize the form of development, government had initiated a new concept of regionalisation in the form of Upazilla in the early 80s. Urban Development Directorate (UDD) had taken initiative for preparation of Master Plan of these upazillas. The Upazilla Master Plans were land use type Master Plan and Upazilla Administration was responsible for execution of the plan proposals.
Chapter 3

URBAN PATTERN OF THE CITY OF RAJSHAHI
Chapter 3: URBAN PATTERN OF THE CITY OF RAJSHAHI

3.0 General Statement

Rajshahi originated on the bank of the River Padma which still exist as the older part of the city. Almost every city originates from the centre of its economic activities, particularly, commercial and industrial activities. Rajshahi is no exception. The all season navigable Padma River once served as the lifeblood of Rajshahi City. There were trading through the port facilities on the Padma, commercial activities cropped up around the port and gradually expanded outward with the pace of growth of population and economic activities. Rampur-Boalia was the main focus of activities. However, mainly or sluggish growth of the economy, the rate of urbanization was always slow in Rajshahi. Loss of navigability of the Padma is identified as the most important reason for economic down fall of the city.

3.1 Location of the City

Situated on the left bank of the Padma at the apex of the Bengal Delta (24°22'N latitude and 88°33'E longitude), Rajshahi originated as a commercial centre, particularly for silk and indigo trade, and became prominent after the advent of the Europeans. The city is bounded with Naogaon Zilla on the North, Nawabganj on the West and Natore Zilla on the east. (Refer to Map 3.1)

3.2 Physical Characteristics of Rajshahi Region

3.2.1 Geology and Soil

The study area forms a small part of the much larger Ganges and Jamuna River Basin (part of the Bengal basin of tectonic origin) which is primarily a large flat alluvial basins made up of quaternary sediments having varied thickness ranging from
a few hundred meters along the northern limit of the of the basin to 18 km at the
deepest point in the south of the country. The physical characteristics of the basin
under consideration are complex in that they have been the sites of sedi
cimentary
deposition by two of the world's mighty rivers to the braiding and meandering
streams of the Pleistocene surface (made up of cohesive material such as clay)
between the Ganges and the Brahmaputra rivers show numerous cut-off and ox-bow
lakes indicating that the alluvial deposits (mainly fine sand with silt) are less
consolidated.

The soil characteristics of the area can be described as the geological
succession consisting of a series of interbedded silt/clay and sandy layers. It is
observed from the geological cross section that interbedded layers of very loose to
loose and loose to medium dense non-plastic fine sandy silt and silt and fine sand exist in
the area. Interbedded layers of very loose to loose and very soft-to-soft silt or fine
sand mixed with trace to little silt and traces of mica may be observed. Interbedded
layers of medium dense silt and fine sand and having granular composition and
plasticity characteristics similar to the upper silt and fine sand layers then underlie
these layers.

3.2.2 General Topography

The bank of the Padma river from Gopalpur to Chirghat (about 20 Km) is at
an elevated place. From the court point to Sahapur, is further elevated and protected by
Rajshahi city flood protection embankment; the general ground elevation in this area
varies from 17 m to 18m PWD; but the embankment crest height is around 21m
PWD. The natural ground slope is from southwest to northeast (from the Padma
riverbank) in the western side of the city; but southwest to northeast direction (due to
the influence of the Baral river basin) at the eastern side, at Charghat area; at the
north, the river Baranai is flowing from west to east and the natural slope is from west
to east along the river course, but the natural ground slope to the right bank of Baranai
and further south, is from north to south. Study area landform has taken place by
sedimentation process of the Padma and Baranai rivers. Thus some of the areas in
between these rivers, the land is low and/or there exists the beels like Durai, Tikure,
fohar and Shilidar etc.; khals or small spill channels or feeder channels off taking
from or out falling into these rvers. These are namely Durai Khal, Keshabpur Khal,
Tikure Khal, Satobari Khal, Kata Khali Khal, Barajal Khal and Hoja Khal etc.

3.2.3 Climate

Rajshahi has a sub-tropical monsoon climate. Temperature is low in January
and varies between 8 °C to 25 °C. From February temperature is found increase up
to June and thereafter declines slightly every month from July to August. From
September, temperature declines rapidly up to January. The people of Rajshahi
generally feel the hot-wave during April to May. In 1995, the temperature rose up to
43.3°C in May, the highest in seven years record and fell at record level 4.7°C in
January in the same year.

The mean relative humidity is found to low in March (50.2%) and it is high in
August-September (88.4%). A high wind speed is observed during April to June, most
of the northwester occurs during this period. Average 7 years monthly rainfall data
shows that mean annual rainfall is 1624.67 mm, which is lower than the national
mean 2320 mm. About 77 percent rainfall occurs during June-September and rest 23
percent in other 8 months. Rainfall is very low in December (3.14 mm) and it is high
in July and September which are 355.61 mm and 358.43 mm respectively.
3.3 Historical Background of the City

Identified as a Statistical Metropolitan Area (SMA) along with Dhaka, Chittagong, and Khulna (1981 Census), Rajshahi ranks fourth in the hierarchy of the urban centres of Bangladesh. It is the Administrative Headquarters as well as the leading urban centre of the Rajshahi Division, besides being the seat of a university and numerous other institutions. Obviously, the city has a vital role in the economic development of the Division, which represents nearly a quarter of the area as well as population of the country. The place also enjoyed an advantage in respect of its site and situation, being located on the bank of a large navigable river and in the heart of an agriculturally rich region, producing a number of profitable merchandises.

The shifting of the District Headquarters from Natore to Rajshahi in 1825 gave a new impetus to the growth of the town, which also served as the headquarters of the divisional administration for a short period from 1875-88.

Following is a sequential list of Major Events in the history of Rajshahi that played an important role in shaping the status and growth of the city.

Table 3.1 Major Events in the History of Rajshahi

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<th>Year</th>
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<td>1825</td>
<td>District Headquarters transferred to Rajshahi from Natore</td>
<td>1916</td>
<td>Establishment of the Barindra Research Museum</td>
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<td>1825</td>
<td>Establishment of Jalilkhana</td>
<td>1947</td>
<td>Transfer of Divisional Headquarters from Jalpaiguri to Rajshahi</td>
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<td>1825</td>
<td>Arrival of Zamindars</td>
<td>1937</td>
<td>Establishment of the Rajshahi University</td>
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<td>1828</td>
<td>Establishment of the Collegiate School</td>
<td>1958</td>
<td>Establishment of the Rajshahi Medical College</td>
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<tr>
<td>1849</td>
<td>Construction of the first pace or permanent building in Rajshahi</td>
<td></td>
<td>Establishment of the Secondary and Higher Secondary Education Board</td>
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<tr>
<td>1851</td>
<td>Establishment of the Town Police Establishment in Rajshahi</td>
<td>1962</td>
<td>Establishment of Radio Station</td>
</tr>
<tr>
<td>1865</td>
<td>Establishment of Rajshahi Sadar Hospital</td>
<td>1962</td>
<td>Establishment of Divisional Stadium</td>
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Continued
The 1947 partition brought about changes in the boundary of Bengal Districts and necessitated migration of people. The 1951 census showed a sharp decrease; this was possibly owing to migration of a large number of Hindus from Rajshahi to neighboring West Bengal districts. Since then there had been a steady increase in population. There were reasons for this:

- After partition, the divisional headquarters was established in this town and a lot of base employment facilities were made available to people. Many regional and district offices were setup. Educational institutions like the Medical College, the Engineering College and the University were established.

- People from rural areas began to migrate to the town in search of better jobs. According to the 1961 census, 12% of the people of Rajshahi town were immigrants from the different parts of Bangladesh and 17% came from the Indian districts adjacent to Rajshahi. It was this 17% that constituted the majority of the upper, the upper-middle and the professional classes of Rajshahi town today. They formed the modernized aristocracy, sufficiently numerous to meet the various needs of municipal government and of leadership in this part of Bangladesh (Akanda, 1983).
3.4 Physical Growth of the City

A number of factors impeded the physical growth and development of the town (Refer to Map 3.2) the past. The backwash effects of the growth of Kolkata as a colonial primate city inhibited the development of Rajshahi, as it did with the other urban centres of the region. The decline of the silk and indigo trade and the decay of the river channel also dealt a serious blow to the economy of the town.

Again, although the opening of the railway in the early 1930s provided a fillup to the development of the town, its alignment closely touching the northern margin of the built-up area, and paralleling the river, constricted the normal growth of the town. Sandwiched between the railway and the river, the town could only grow in a ribbon from along the Joyce with almost a single thoroughfare, viz. the Nature Road.

The linear growth of the city has indeed given rise to a dysfunctional shape affecting the whole urban system, particularly its land use and circulation pattern. It may be noted here that a break through in the northward expansion of the city across the railway line has been made recently, but this has further thrown the railway line to relief as a serious hindrance to interurban circulation.

Governmental development took place mostly on the western side in the direction of the administrative quarters. A new force for growth in the opposite direction was also created as a result of the establishments of the University and the DCSIR Laboratory on the eastern fringe of the city and two large-scale industries farther east. These developments have, of course, further accentuated the linear extent of the city, which high lights the predominant influence of the Nature Road as the main urban artery (Refer to Map 3.3).
GROWTH PATTERN OF RAJSHAHI CITY

1876

Rajshahi District

1952

Rajshahi Division

1984

1983

2002

Source:
BCC, RDA
Projection:
Bangladesh Topographic Map 1:50,000
3.5 General Administration of Rajshahi.

In ancient time Rajshahi District was a part of Pundrabardhan. During 4th century B.C. Pundrabardhan was under the rule of Chandragupta Mayur. From 750 to 1150 A.D. it was under the Palas dynasty, which was the most glorious period of its past. Then the Senas took over and ruled from 12th century A.D. to 1201 A.D. During medieval period (1204-1575) Rajshahi was ruled by the Muslims, which started by the Mohammad Bakhtiyar Khalji's conquest of this region in 1204 A.D. Mughal rule began in 1574 and continued up to 1756. British took over the region after the fall of Sirajudowlah in the Plassey Battle in 1757. The British ruled Rajshahi as a part of Bengal for about 200 years. During British rule and subsequent period Rajshahi was shaped by changing socio-economic-political changes that took place in this region.

3.5.1 The Mughal Period

During the governorship (Subadar) of Murshid Quli Khan, he in his financial settlement divided the entire land of Bengal into 13 chaklas. Rajshahi was one of the 13 chaklas. The chakla Rajshahi that included the present district of Rajshahi was a revenue unit under the administration of Murshid Quli Khan. At that time the chakla Rajshahi was governed by a zamindar named Udai Narayan. His zamindary extended on both sides (North and South) of the river Padma. The people of the districts of Murshidabad, Birbhum, Santal Pargana, Rajshahi, Bogra, Pabna, Maldah and some people of Dinajpur and Rangpur districts were his direct tenants and paid the land revenue to him. His whole zamindar was known as Rajshahi.

3.5.2 British Period

After the Battle of Plassey in 1757, the East India Company became the legal authority of the territory and with this the Mughal system of administration in Bengal
changed radically. In 1765, the Dewani of Bengal (including Bihar and Orissa) was assumed by the East India Company in return for an amount of 26 lakhs to Emperor Shah Alam II. When the East India Company established their rule, the district of Rajshahi was included likely in the zamindari of Rajshahi.

In 1783, during the time the zamindari of Rajshahi formed the private estate belonging to Natore Raja, who alone was responsible for the payment of revenue to the company. Up to the time of permanent settlement in 1793, Rajshahi formed the largest and one of the most important administrative subdivisions of Bengal.

Until 1825, the headquarters of Rajshahi district was at Natore. The chief defects of the town were the absence of pure water supply and the efficient system of drainage. In short at that period Natore was proved to be a very unhygienic place. This is why the headquarters was shifted to Rampur Boalia, a station town of Rajshahi District in 1824. The actual location of the headquarters was at Srirc rampur near Boalia. But in 1850, due to the heavy rainfall all the offices were taken away by the river Padma.

3.5.3 Present Administration

The greater district Rajshahi was bounded on the north by west Dinajpur, on the west by the district Maldah and Murshidabad, on the east by Bogra and Pabna and on the South side the river Padma which separates Rajshahi from Murshidabad district and Kushia district of Khulna Division. Total Area of the district was 3,652 square miles. The district was composed with 4 sub-divisions, 31 police stations, 272 Union Parishads and 6,192 villages.

The administration of the district is headed by a Deputy Commissioner and he is assisted by five A.D.C’s viz, A.D.C (General), A.D.C (Development), A.D.C

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1 The Chakha was a Revenue Unit
(Revenue), A.D.C (Project) and A.D.C (Literacy). Besides 5 A.D.C's there are 13 magistrates, 6 with first class power, 3 with second class power and 4 with third class power.

3.6 The History of Rajshahi University

Rajshahi, with a rich historical heritage, had been famous as a centre of culture and learning. During the early British rule, Rajshahi, though started as a European Commercial outpost, continued to flourish as an important centre of cultural and intellectual life. In pre-independence period, the Rajshahi College was regarded as one of the best educational institutions of its kind in Bengal. Courses up to the Master and Bachelor of Laws degrees were offered at the college. It was affiliated originally to the University of Calcutta. After partition in 1947, it came under the University of Dacca. The college emerged out of a small English School founded in 1828, called the Boalia School.

3.6.1 Establishment of the University

The new University was established on 1953 by the Rajshahi University Act 1953 (the East Bengal Act XV of 1953). Its object was to establish and incorporate a University at Rajshahi for the purpose of affiliating the Intermediate, Islamic Intermediate and Degree Colleges of Arts and Science, and Professional, Technical and Oriental Colleges situated within the Rajshahi Division and also to promote and control education at the stages above the secondary education and to facilitate the establishment of post-graduate teaching and research departments.

3.6.2 Growth and Development of the University

The University of Rajshahi had a humble beginning. It started literally from a scratch. Teaching was formally started in 1954-55 session but only at the postgraduate level and in morning shifts at the Rajshahi Government College. Courses were offered
in Bengal, Economics, English, History, Philosophy, Mathematics, Education and Law. The offices of the University and the Library were housed in hired buildings of the centuries old Portuguese trading post called the Barakuthi and the B.B. Hindu Academy, an old school nearby. Provisions for students’ accommodation was made in rented houses scattered all over the Rajshahi Town. At the same time elaborate preparations were taken to build the University campus on an area of 1000 acres at Matihar, about 3 miles away to the east of then city centre and along the Natore Road.

Though basically the University was modeled on a residential type, it had to affiliate colleges then functioning in the jurisdiction of the Rajshahi and Khulna Division. At the time of establishment of the university, as many as 20 colleges were affiliated to it.

3.7 Communication

Rajshahi is well communicated through road, rail and air with other parts of the country. Although the the city is on the north of the mighty river padma, there is no water transport facilities to and from the city. Here is a discussion on the communication of Rajshahi with other parts of the country discussed below.

3.7.1 Road Transport

The Bus Services: Rajshahi is well connected with other districts of Bangladesh by road. Inter-district buses operate along 20 routes while Intro-district buses operate each way along another 12 routes daily. In addition, 2 air-conditioned buses operate each way daily between Rajshahi and Dhaka.

The Bus Terminal: A bus terminal located opposite to main Railway Station is being used by all inter-district and intra-district buses. Around 500 buses (inter and intra district) regularly use the present bus terminal. In addition, the Dhaka bound buses also operate from a place very near to this bus terminal. Moreover, a large number of
trucks operate from Rajshahi and carry thousands of tons of goods to many parts of the country.

3.7.2 Rail Transport

Rajshahi City is reasonably well connected by railway with other parts of the country. The railway line from Rohnopur (border station in the west) to Ishwardi with a link to Chapai Nawabganj passes through the centre of Rajshahi City it is single line broad gauge railway, not very well maintained. There are 7 Railway Stations within RDA area of which Rajshahi Railway Station is the largest and busiest. (See Appendix C for Photograph)

Rajshahi is a terminal station (i.e. trains originate or terminate there) for a number of train services. Trains operate from Rajshahi and through Rajshahi along 11 routes and provide 3 types of services, namely inter-City, Mail/Express and Local/Mixed train services.

Table 3.2 Inter-City Train Services Operating Along 5 Routes

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of Train</th>
<th>Type of Service</th>
<th>Route</th>
<th>Frequency</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>706, Padma Express</td>
<td>Inter-City</td>
<td>Rajshahi - Bargaikandi bridge</td>
<td>One train everyday – up &amp; down</td>
<td>Except Sunday</td>
</tr>
<tr>
<td>2</td>
<td>733, Titum Express</td>
<td>Do</td>
<td>Rajshahi - Chilabari</td>
<td>60</td>
<td>No holiday</td>
</tr>
<tr>
<td>3</td>
<td>731, Barundi Express</td>
<td>Do</td>
<td>Rajshahi - Sandpur</td>
<td>60</td>
<td>Except Friday</td>
</tr>
<tr>
<td>4</td>
<td>746, Jatindra Express</td>
<td>Do</td>
<td>Rajshahi - Gashanda</td>
<td>60</td>
<td>Except Monday</td>
</tr>
<tr>
<td>5</td>
<td>716, Kasperikha</td>
<td>Do</td>
<td>Rajshahi - Katiara</td>
<td>60</td>
<td>Except Thursday</td>
</tr>
<tr>
<td>6</td>
<td>726, Sundarban Express</td>
<td>Do</td>
<td>Rajshahi - Sirajganj</td>
<td>60</td>
<td>Except Tuesday</td>
</tr>
</tbody>
</table>

Source: Station Master, Rajshahi Railway Station

Note: Rajshahi Sandpur and Rajshahi-Chilabari are taken as one route.

Table 3.3 Mail/Express Train Services Operating Along 3 Routes

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of Train</th>
<th>Type of Service</th>
<th>Route</th>
<th>Frequency</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>016, Maharana Express</td>
<td>Mail</td>
<td>Chapai Nawabganj - Rajshahi-Khulna</td>
<td>One train everyday – up &amp; down</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>031, Uttam Express</td>
<td>Do</td>
<td>Rajshahi - Pabnaipor</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>06, Rajshahi Express</td>
<td>Do</td>
<td>Rajshahi - Sirajganj bazar</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Source: Station Master, Rajshahi Railway Station
Table: 3.4 Local/Mixed Train Services operating Along 3 Routes

<table>
<thead>
<tr>
<th>SL No</th>
<th>Name of Train</th>
<th>Type of Service</th>
<th>Route</th>
<th>Frequency</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>556, Local</td>
<td>Local</td>
<td>Rajshahi-Ishwardi</td>
<td>One Train everyday-up &amp; down</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>563 and 564, Local</td>
<td>Do</td>
<td>Rohonpur-Rajshahi-Ishwardi</td>
<td>do</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>565, Local</td>
<td>Do</td>
<td>Rajshahi-Chapai Navabgonj</td>
<td>do</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Station Master, Rajshahi Railway Station

Out of 11 routes, Rohonpur-Rajshahi-Ishwardi route is generally becoming important inter-country route for carrying boulders, lentils, rice and other import and export traffic between Bangladesh and India.

3.7.3 Water Transport

It is only during the rainy season (wet season), that river Padma can be used by country boats, for carrying mostly sand from the islands (char) for landfill and sand from river beds for construction. Since these are highly seasonal use of the river, no shore facilities have developed.

3.7.4 Air Transport

The airport is situated on a land area of 162 acres. Since the opening of the airport in 1984, regular flight connection with Dhaka was maintained. The terminal facility has been slightly improved. It can handle about 80 passengers at one time.

The runway of Rajshahi airport which is only 6000 ft long and is suitable only for the use of smaller aircrafts like F-28. At present both Bangladesh Biman and GMG Airlines maintain one daily flight each between Dhaka and Rajshahi. Bangladesh Biman operates F-28 aircraft, having seating capacity of 85 passengers. GMG operates 2-types of aircrafts, one having seating capacity of 37 and the other is a 50 seater.
3.8 Economic Status of Rajshahi

Rajshahi is the fourth metropolitan city of Bangladesh and Divisional Headquarter of Rajshahi Division. During sixties, the city experienced rapid linear physical expansion and increase in population. But the rate of economic growth and the process of industrialization could not keep pace with it. Partition of India in 1947 and continuous rural-urban migration led to sudden population boom in Rajshahi City and increased demand for infrastructural facilities and urban amenities. Traditional agrarian economy of the hinterland, lack of support services and capital were major constraints to industrial growth of Rajshahi City. Like many other cities in South Asia, Rajshahi presents a case of quasi-urbanization.

At national level, northern region of Bangladesh is recognized as an economically backward region. For example, per capita income in 1992/93 of Rajshahi Division was 18.33% less than the national average. Level of poverty measured by the calorie intake standard was higher in Rajshahi though the Division was surplus in food production. About 56% of the population in the region was below the poverty line. The Division has a lower life expectancy (56.5 years), higher incidence of illiteracy (72.9%) and lower coverage by national health improvement programmes.

The reasons for low industrial growth in Rajshahi were many. Relative isolation and high transport cost, problems of raw materials and power supplies, lower scale of operation and low productivity of capital compared to the whole of the country were some of major reasons.
3.8.1 Major Economic Functions of the City of Rajshahi in Local, Regional and National Context

Cities in developing countries like Bangladesh play a pivotal role in economic growth, employment generation and industrialization. However, economic functions of a city have to be compatible with local (the city and the hinterland) resource endowment.

The city of Rajshahi acts as major employment centre for rural poor and destitute migrating from its hinterlands. The city provides the base and facilities for industrial and manufacturing activities at a moderate level and generates various kinds of services in both public and private sectors. It is the modal point for transport network and transshipment activities for the adjoining regions and with other parts of the country.

After partition of India, Rajshahi, a quiet district town was given the status of divisional headquarters. With the establishment of a University, Medical College and many regional offices the population of Rajshahi town had registered a sharp increase during the decade (1951-61), the increase being 42% over the population of 1951. The increase of population also accounts for large number of optees and muihairs who settled here after partition of India.

The industrial base of Rajshahi is comparatively poor. Process of industrialization could not keep pace with the rate of increase in population. Inadequate development of infrastructural facilities, shortage of capital and its low productivity regionally acted as a brake on the development of economic base of the city like industry, trade and commerce.
3.8.2 Importance of Mango in Regional Economy

Rajshahi is famous for its quality mangoes. Mango retains its importance in regional and national economy. Mango is a principal cash crop in greater Rajshahi. Bangladesh produces about two lakh tons of mangoes in 50,000 ha. Annually, about one-third of the total country production of Mango is grown in greater Rajshahi. Mango production shows declining trends over recent years. Main reasons for fall in production are declining fruit bearing capacities of aging mango trees, poor maintenance of mango gardens, and lack of modern production technology.

3.8.3 Role of Rajshahi in Regional and National Economy

Former Rajshahi District makes substantial contribution to regional and national economy in agriculture sector. Rajshahi produced 3.18% of national production of local variety rice, 10.33% of national production of HYV varieties of rice and 9.8% of wheat in Bangladesh in 1998-1999. It produced 7.15% of national production of pulses, 4.45% of oil seeds and 5.15% of potato in 1998-99. One-third of total mango production and 24.87% of sugarcane production in the country were grown in Rajshahi zone. Details are given in tabular form.

Table 3.5 Agriculture Productions of Rajshahi in National Context

<table>
<thead>
<tr>
<th>Major Crops</th>
<th>Area in Acres</th>
<th>Production in Mt.</th>
<th>Production Mt. / Acre in Rajshahi</th>
<th>Production Mt. / Acre in Bangladesh</th>
<th>As percentage of National Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice all varieties (local)</td>
<td>297,000</td>
<td>136,000</td>
<td>0.46</td>
<td>0.44</td>
<td>3.18</td>
</tr>
<tr>
<td>Rice all varieties (HYV)</td>
<td>502,000</td>
<td>1,67,000</td>
<td>3.22</td>
<td>3.02</td>
<td>10.35</td>
</tr>
<tr>
<td>Wheat</td>
<td>217,640</td>
<td>187,070</td>
<td>0.86</td>
<td>0.91</td>
<td>9.80</td>
</tr>
<tr>
<td>Pulses</td>
<td>126,090</td>
<td>30,980</td>
<td>0.29</td>
<td>0.31</td>
<td>7.15</td>
</tr>
<tr>
<td>Oil seed</td>
<td>63,310</td>
<td>21,495</td>
<td>0.35</td>
<td>0.35</td>
<td>4.45</td>
</tr>
<tr>
<td>Potato</td>
<td>27,945</td>
<td>79,930</td>
<td>2.86</td>
<td>4.44</td>
<td>5.15</td>
</tr>
<tr>
<td>Brinjal</td>
<td>17,320</td>
<td>20,153</td>
<td>1.16</td>
<td>0.89</td>
<td>6.38</td>
</tr>
<tr>
<td>Vegetables</td>
<td>33,385</td>
<td>56,940</td>
<td>1.61</td>
<td>2.83</td>
<td>4.36</td>
</tr>
<tr>
<td>Banana</td>
<td>3,425</td>
<td>19,785</td>
<td>5.78</td>
<td>6.38</td>
<td>3.17</td>
</tr>
<tr>
<td>Mango</td>
<td>24,230</td>
<td>57,675</td>
<td>2.38</td>
<td>1.50</td>
<td>10.88</td>
</tr>
<tr>
<td>Jute</td>
<td>45,340</td>
<td>150,740</td>
<td>3.56</td>
<td>4.01</td>
<td>1.59</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>107,935</td>
<td>1,834,893</td>
<td>17.00</td>
<td>17.10</td>
<td>24.87</td>
</tr>
<tr>
<td>Betel Leaf</td>
<td>4,015</td>
<td>6,235</td>
<td>2.30</td>
<td>2.16</td>
<td>11.68</td>
</tr>
</tbody>
</table>

Source: Yearbook of Agricultural Statistics of Bangladesh, 2000 and Statistical Yearbook of Bangladesh 1999
3.9 Rajshahi City as an Urban Centre

Rajshahi had a rich historical background. In ancient and medieval times, it constituted the heartland of Bengal. Towards the end of medieval times, with the transfer of capital from Dhaka to Murshidabad, Rajshahi areas came in closer contact with the ruling aristocracy. The commercial potentialities of Rajshahi attracted European companies, the Dutch, the French and the English, all of them having business posts in Rajshahi.

3.9.1 Development of Rajshahi Metropolitan Town

The municipal administration was introduced into Rajshahi town in 1876. At the beginning, the municipal committee consisted of seven members, all of them being nominated by the government. The district magistrate, the sub-divisional officer and the medical officer were ex-officio members of the committee. Eventually election was introduced initially on a limited scale. The chairman and the Vice-Chairman were elected by the Commissioners, the majority of them being elected by the municipal tax-payers. The Municipal government was virtually a committee government; its administration was run through several committees consisting of municipal commissioners. The number of Rajshahi Municipal committees rose to eight in the 1930s, they looked after eight different aspects of administration: finance, public works, waterways, light, sanitation and health, education, appeal and the Raja P N hospital. Here is a brief on the activity by the municipality in some of the sectors.

3.9.1.1 Roadways

The length of roads within the limits of the town increased from nine miles in the 1870s to 69.50 in the 1970s. Of 69.50 miles, 31.91 were metal led, 9.27 herringbone soled, 11.67 brick flat soled and the 16.65 were kutchu.
From time to time, private roads and by lanes were taken under the municipal management. In 1890, the municipality took three such pathways. Another three lanes were taken under the municipality in 1934. This was how the municipality played an important role in the development of the city. However, the municipality spent substantial amount yearly for maintenance and repairs of roads.

With the emergence of Rajshahi town as the divisional headquarters after the creation of Pakistan in 1947, the municipality received much closer government attention and its development, in consequence, was further stimulated.

3.9.1.2 Electricity

In 1920s, the town elite of Rajshahi began to feel the need of electricity supply in the municipal areas. The commissioners took active interest in the subject in the 1930’s; they officially decided in 1934 to replace gradually all kerosene lamps with electric ones on the streets.

A private firm named the Chittagong Electric Supply Company undertook to supply electricity to the town. The municipality made an arrangement with the company to the effect that it would supply "electrical energy" to the "municipal street lights" from January 1936. It was agreed that the company should erect along with overhead-distributing mains, a separate streetlight main and should supply there from electrical energy to electric street lamps along municipal roads, streets, lanes and by-lanes at specified rates. The provisions of the Indian Electricity Act 1910 and the Rajshahi Electric License 1935 were to govern the supply of electricity.

3.9.1.3 Water Works

The supply of water to town people was one of the major functions of the municipality. One important advantage to Rajshahi of being a riverside town was that its people could use river water for their day-to-day purposes. Other sources of water for the town people were ponds, tanks and tube wells, dug and maintained by the
zamindars: two of them were famous for their contributions – Maharan Hemanta Kumar Devi of Puthia and Kumar Hemanta Kumar Rai Bahadur of Dighapatia (See Appendix C for Photograph)

With the growth of population and the expansion of the town, the need was felt to extend the water supply system. To modernize the water-works, the municipality entered into an arrangement with the Chittagong Engineering Company. The company undertook to supply water with electricity on condition that the municipality would pay to the company a handsome amount.

3.10 Upgradation of the Municipality into City Corporation

3.10.1 Composition of Rajshahi City Corporation

Rajshahi City Corporation was established by Rajshahi City Corporation Act, 1987 as an up-gradation of the Municipality or Pourashava. The City Corporation is composed of

1. One elected Mayor,
2. Thirty elected Ward Commissioners,
3. Ten elected women commissioners (one for each three adjacent wards).

3.10.2 Functions of the City Corporation

1. To ensure healthy environment in the city;
2. To ensure healthy conditions of both public & private buildings by instructing and compelling the building owner to conform to the standard,
3. Managing disposal of both hard & soft wastes,
4. Construction and maintenance of separate public toilets- for male and female,
5. Registration of Birth, death and marriage,
6. Prevention of infectious diseases in the city,
7. Establishment, maintenance & operation of health, mother and child care centre;

8. Establishment and maintenance of necessary number of hospitals and dispensaries to provide health facilities;

9. Ensure supply of pure water to the city dwellers for general and private use against collection of taxes;

10. Maintenance and control of public water bodies, fishing grounds, ferry ghat etc.;

11. Quality control of private business in drinking water;

12. Ensuring shopping & marketing facilities for commodities in the city;

13. Establishment & maintenance of slaughtering house;

14. Establishment & maintenance of veterinary hospital and dispensary;

15. Preparation and Implementation of City Master Plan;

16. Construction and Maintenance of city roads for the city dwellers ensuring street lighting and controlling transport of vehicles;

17. Ensure the fire protection, city plantation and maintenance of education centres;

18. Arrangement of different kinds of exhibition and fair.

19. Maintenance of art gallery, museum, library, cultural centers etc.

3.1.1 Establishment of Development Authority and Physical Planning of the City.

3.1.1.1 Establishment of City Development Authority

For formulation and execution of plans and schemes for the development of Rajshahi Town and its adjoining areas, the government of the people's republic of Bangladesh established an Autonomous body named Rajshahi Town Development Authority in 1976. The prime duties of the Authority include preparation of general
development plan, preparation of Functional Master Plan, preparation of development schemes, execution of development schemes etc. Here is discussion on the prime powers and activities of the Development Authority regarding Town Planning.

3.11.2 Composition of the Authority

The Authority shall consist of the following members, namely:

(a) Chairman to be appointed by the Government;
(b) The Chairman of the Rajshahi Pourashava, ex-officio;
(c) The Deputy Commissioner, Rajshahi, ex-officio,
(d) One representative of the Public Works Department, not below the rank of Superintending Engineer, to be nominated by the Ministry of Public Works and Urban Development;
(e) One representative of the Roads and Highways Department, not below the rank of Superintending Engineer, to be nominated by the Ministry of Communications (Railway, Roads, Highway and Road Transport Division).
(f) One representative of the Telegraph and Telephone Department, not below the rank of Superintending Engineer, to be nominated by the Ministry of Communications (Posts, Telegraph and Telephone Division):
(g) One representative of the Public Health Engineering, not below the rank of superintending Engineer, to be nominated by the Ministry of Land Administration, Local Government, Rural Development and Co-operative (Local Government, Rural Development).
(h) Three non-official members to be nominated by the Government.

3.11.3 Activities of the Authority

Preparation of Records of Existing Services, Facilities, Public Utilities and of Important Public Properties

(1) The Authority shall, as soon as may be after the commencement of this Ordinance, collect maps and other relevant records, undertake physical survey and do such other things as it may deem necessary for the purpose of preparation of records of-

(a) Existing drainage system, indicating its efficiency and deficiency.
(b) Maps of all drains owned and maintained by Government or any local authority;
(c) Maps of drains over private land forming part and parcel of the drainage system in the area to which this Ordinance extends;
(d) Existing water supply and distribution systems, location and capacity of different water works including deep tubewells, overhead tanks, main water-supply pipelines and the areas served by different water works;
(e) Educational institutions, particularly primary and secondary schools, indicating their location, standard, number or pupils and the population of the area served by each such institution;
(f) Existing public open spaces, play grounds for teenagers and other places of recreation, indicating their location, site and the area and population served by each such open space, play ground or place of recreation;
(g) Existing road system, traffic load and nature of traffic on different roads indicating the efficiency and deficiencies of the system, and

(2) Properties including vacant lands owned by Government, local authorities, and corporations, indicating their present use.

Preparation of General Development Plan

(1) The Authority shall prepare in the prescribed manner a general development plan for the area within its territorial limits and submit the same to the Government for approval, and the Government may approve the plan with or without modifications.

(2) The general development plan shall broadly indicate:

(a) Future road system;
(b) Future drainage system;
(c) Future water supply system;
(d) Future distribution of educational institutions, health service facilities, public open spaces and places of recreation;
(e) Location of future industrial establishments and commercial centres;
(f) Lands likely to be required for development projects the execution of which may commence within five years from the date of submission of the general development plan to the Government; and
(g) Such other matters as the Authority may deem fit to indicate in it.
(3) The general development plan shall include such maps, charts, graphs and other descriptive matters and reports as the Authority may consider necessary to fully explain the proposals contained in the plan with their implications, justifications and benefits.

(4) The general development plan shall lay down such basic planning policy as the Authority may deem appropriate for overall long term development of the areas to which this Ordinance extends but the plan need not precisely indicate the land to be required or acquired for any purpose, alignment for any road, drain or water supply line, the boundaries of any public open space or the sites for educational institutions, health service facilities and other amenities and public utility services.

(5) All future development schemes for any area within the limits of the Authority formulated by the Authority or other agencies shall be in conformity with the general development plan.

**Preparation of Functional Master Plan:**

(1) The authority shall, pursuant to the general development plan, prepare in the prescribed manner functional master plans relating to-

(a) land use zoning and land reservation;
(b) water supply, sewerage and drainage;
(c) roads, highways and traffic circulation, and
(d) community planning, housing, slum clearance and slum improvement.

(2) The Authority may, pursuant to the general development plan, call upon any local Authority or Government organization or institution dealing with electric supply, railways and tele-communications in an area to which this Ordinance extends to prepare functional master plans in respect of electric supply, railways and tele-communication and thereupon the local Authority or Government organization or institution shall prepare in the prescribed manner functional master plans in respect thereof.
(3) The Authority, any local authority or any Government organisation or institution may be required to prepare functional master plans for the purpose of this Ordinance on such matters as the Government may, by notification in the official Gazette, specify.

(4) All functional master plans prepared under sub-section (1) or sub-section (2) shall be submitted by the Authority to the Government for approval and the Government may approve such plans with or without modifications.

Preparation of Development Schemes

(1) The Authority shall prepare in the prescribed manner and submit to the Government for approval specific development schemes for an area to which this Ordinance extends or any part thereof on the basis of the functional master plans, and all such development schemes shall contain plans for the proposed developments including those for housing if any written reports, specifications of works, estimates of cost and proposed methods of financing.

(2) A development scheme prepared and submitted under sub-section (1) may provide for all or any of the following matters, namely:

(a) The acquisition of any land in the area comprised in the scheme, which may, in the opinion of the Authority, be required for, or be affected by, the execution of the scheme;

(b) The laying out or re-laying out of the land in the said area;

(c) such demolition, alteration or reconstruction of buildings situated on the land which it is proposed to acquire in the said area as the Authority may consider necessary;

(d) The construction of any building which the Authority may consider it necessary to erect for any purpose, consistent with the provisions of this Ordinance, other than sale;

(e) laying out or alteration of streets, drains, sewers, water supply pipelines, bridges, causeways and culverts;

(f) The levelling, paving, metalling, flagging, channelling, swanaging and draining of the said streets and provision therein of water, lighting, and other sanitary conveniences ordinarily provided in a municipality,
(g) The raising, lowering, or levelling of any land in the area comprised in the scheme,

(h) The formation, retention, enlargement and improvement of open spaces;

(i) The augmentation of the present water supply or any other scheme for the improvement of water supply;

(j) The making of a drainage and sewerage scheme including outfall works;

(k) The acquisition and reservation of sites for construction of educational institutions, health centres, hospitals, power houses and electric substations, bus taxi and rickshaw stands and bazars, and

(l) Any other matter consistent with this Ordinance which the Authority may consider necessary.

(3) The Government may approve a development scheme submitted to it under sub-section (1) with or without modifications.

Formulation of and Execution of development scheme of urgent public importance. (1) Notwithstanding the provisions of sections 10 and 11, the Authority may, with the prior approval of the Government, formulate and execute development schemes of urgent public importance even before the preparation of the general development plan or preparation of functional master plans.

3.12 Stakeholders of the City of Rajshahi

The successful implementation of a Plan depends upon efficiency of the stakeholders and the degree of integration and coordination among them. Master Plan of a Metropolitan city involves a complex affair having numerous stakeholders influencing the decision making process of development.

The Fifth Five Year Plan (1997-2002) identified 12 major activities under Physical Planning, Water Supply and Housing Sector as contribution to the
improvement of the quality of life and living conditions of the people and their working environment by providing adequate physical infrastructure and services. Of these activities, the following are concerned in urban areas:

1. Preparation of Land use Master Plan for Urban Centres
2. Making provision of housing for government personnel and development of satellite towns in urban areas
3. Resettlement of slum and squatter dwellers
4. Delivery of basic services to the slum dwellers.
5. Provision of safe drinking water, sewerage and sanitation facilities
6. Construction of Government offices, institutional and residential buildings
7. Development of road network in metropolitan cities and reduce traffic jam
8. Combating environmental degradation and water/air pollution
9. Development of tourism
10. Research and Development in the field of building materials and construction

The Five Year Plan however mentions that 12 ministries and divisions are implementing these activities. In reality, these activities are mostly under the jurisdiction of the ministries like (1) Housing and Public Works, (2) Ministry of Local Government and Rural Development, (3) Ministry of Communication and (4) Ministry of Civil Aviation and Tourism.

The following agencies have been identified as having links with Rajshahi Metropolitan Development and Service Provisions:
Table 3.6 List of Agency Involved in Different Sectors in Rajshahi City

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Name of the Agency</th>
<th>Major Working Area/Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bangladesh Paajan Corporation (BPC)</td>
<td>Development of Tourism</td>
</tr>
<tr>
<td>2</td>
<td>Bangladesh Railways (BR)</td>
<td>Rail Transport</td>
</tr>
<tr>
<td>3</td>
<td>Bangladesh Rifles</td>
<td>Border Security</td>
</tr>
<tr>
<td>4</td>
<td>Bangladesh Road Transport Authority (BRTA)</td>
<td>Road Transport</td>
</tr>
<tr>
<td>5</td>
<td>Bangladesh Small &amp; Cottage Industries Corporation (BSCIC)</td>
<td>Promotion of Small and Cottage Industries</td>
</tr>
<tr>
<td>6</td>
<td>Bangladesh Telegraph and Telephone Board (T&amp;T)</td>
<td>Telephone Communication</td>
</tr>
<tr>
<td>7</td>
<td>Bangladesh Water Development Board (BWDB)</td>
<td>Flood Protection, Construction and maintenance of Town Protection Embankment.</td>
</tr>
<tr>
<td>8</td>
<td>Barind Multisectoral Development Authority (BMDA)</td>
<td>Irrigation, Construction of Roads, Drinking water supply and Plantation</td>
</tr>
<tr>
<td>9</td>
<td>Cantonment Board</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Civil Aviation</td>
<td>Management of Air Traffic and Height Zoning</td>
</tr>
<tr>
<td>11</td>
<td>Department of Forest</td>
<td>Forest</td>
</tr>
<tr>
<td>12</td>
<td>Department of Public Health Engineering (DPHE)</td>
<td>Water Supply and Sanitation</td>
</tr>
<tr>
<td>13</td>
<td>Deputy Commissioner (DC)</td>
<td>General Administration of the city</td>
</tr>
<tr>
<td>14</td>
<td>Directorate of Education</td>
<td>Education sector</td>
</tr>
<tr>
<td>15</td>
<td>Directorate of Health</td>
<td>Health</td>
</tr>
<tr>
<td>16</td>
<td>Directorate of Industries</td>
<td>Industrial Sector</td>
</tr>
<tr>
<td>17</td>
<td>Directorate of Youth</td>
<td>Social Welfare of the city people</td>
</tr>
<tr>
<td>18</td>
<td>Divisional Commissioner (DC)</td>
<td>Divisional Administration</td>
</tr>
<tr>
<td>19</td>
<td>House Building Finance Corporation (HBFC)</td>
<td>Housing Finance</td>
</tr>
<tr>
<td>20</td>
<td>Local Government Engineering Department (LGED)</td>
<td>Installation of Physical Infrastructure like Road</td>
</tr>
<tr>
<td>21</td>
<td>National Housing Authority (NHA)</td>
<td>Development of housing areas for the city dwellers</td>
</tr>
<tr>
<td>22</td>
<td>Power Development Board (PDB)</td>
<td>Provide Electricity Supply in Urban Areas</td>
</tr>
<tr>
<td>23</td>
<td>Public Works Department (PWD)</td>
<td>Development and maintenance of Government Infrastructure like buildings</td>
</tr>
<tr>
<td>24</td>
<td>Rajshahi City Corporation (RCC)</td>
<td>Municipal Services</td>
</tr>
<tr>
<td>25</td>
<td>Rajshahi Development Authority (RDA)</td>
<td>Planning and Development Control</td>
</tr>
<tr>
<td>26</td>
<td>Rajshahi Medical College Hospital (RMCH)</td>
<td>Medical education and health service</td>
</tr>
<tr>
<td>27</td>
<td>Rajshahi Metropolitan Police (RMP)</td>
<td>Maintenance of Law and Order of the city</td>
</tr>
<tr>
<td>28</td>
<td>Road and Highways Department (RHD)</td>
<td>Construction of Roads</td>
</tr>
<tr>
<td>29</td>
<td>Rural Electrification Board (REB)</td>
<td>Provide Electricity Supply in adjoining rural Areas</td>
</tr>
<tr>
<td>30</td>
<td>Social Welfare Directorate (SWD)</td>
<td>Social Welfare of the city people</td>
</tr>
<tr>
<td>31</td>
<td>Urban Development Directorate (UDD)</td>
<td>Planning of the Thana and Upazilla Headquarters outside RDA area</td>
</tr>
<tr>
<td>32</td>
<td>Zilla Parishad, Rajshahi</td>
<td>Health, Education etc</td>
</tr>
</tbody>
</table>

3.13 Preparation of Master Plan for Rajshahi City

The first ever initiative was taken by Urban Development Directorate (UDD) for the preparation of Master Plan for the city of Rajshahi in 1968. This was basically a land use type Master Plan. The proposals were indicated in a map without specific proposals and implementation indication.

Rajshahi Development Authority prepared Master Plan for the city in 1984. The 1984 Master Plan of Rajshahi City was a joint effort by Urban Development Directorate (UDD), UNDP-UNCHS and RDA. The plan preparation was actively participated by UNCHS consultants and the professionals from UDD.

Though the plan was prepared in mid eighties, it is unknown why the UN consultants used the term ‘Master Plan’ for Rajshahi City Plan. Because concept of ‘Master Plan’ was already being discarded by planning professionals throughout the world. The style and manner used to describe the plan does not also coincide with the Master Plan prepared in the 1950s and 1960s for other major cities of the country.

As the time period of 1984 Master Plan was over in 2000, Rajshahi Development Authority took initiative to prepare a new Master Plan for the city. The new Master Plan will contain a package of Structure Plan, Urban Area Plan and Detailed Area Plan. The total Master Plan area is 322 sq km. The Preparation of the Master Plan started in 2001 and is expected to be completed by 2004.
Chapter 4

IMPLEMENTATION STATUS OF PROPOSALS
Chapter 4: IMPLEMENTATION STATUS OF PROPOSALS

4.0 General Statement

It has already been mentioned that the first Master Plan for the City of Rajshahi was prepared by Urban Development Directorate (UDD) in 1968. The second initiative to prepare Master Plan for the City was jointly taken by UNDP-UNCHS-UDD-RDA in 1978 and the plan was completed in 1984. In both the plans, a number of proposals were made. Over the last three decades the city has developed and some of the proposals have been implemented and some are yet to be. This section will review the implementation status of the Master Plan’s proposals made for the city of Rajshahi.

4.1 Review of 1968 Master Plan

The 1968 Master Plan for the city of Rajshahi was an effort by Urban Development Directorate (UDD). The local experts of UDD prepared this plan. The 1968 Master Plan was termed as “Development Plan for the City of Rajshahi”. This was basically a land use type Master Plan indicating the broad land use and future road network of the city. (Refer to Map 4.1) The plan was prepared without proper survey and investigation. This happened because it was considered that the whole process from the beginning of survey to the finalization of a Master Plan with completion of all formalities would absorb a very considerable time. But the physical development of the urban areas had not enough time to wait for such a long time. So for the guidance of the city development on a broad outline (like road and major land use) was considered and the plan was prepared in 1968 for the city of Rajshahi.
4.2 Implementation Status of 1968 Master Plan

Basically the 1968 Master Plan proposals had very limited scope to be implemented. This was because of the following reasons.

(i) Change in the political situation of the Region (the independence of Bangladesh in 1971)
(ii) There was no caretaker of the Plan.
(iii) There were a lot of limitations in the plan as it was prepared without proper survey and investigation.

Urban development Directorate had prepared the Plan but there was no local office or officer to execute the proposals. Moreover, the plan was not handed over to any of the agency (like Municipal Corporation or PWD) to implement. This is why, the 1968 Master Plan for the City of Rajshahi was not implemented.

4.3 Review of 1984 Master Plan

The 1984 Master Plan of Rajshahi City was a joint effort by Urban Development Directorate (UDD), UNDP-UNCHS and RIDA. The plan preparation was actively participated by UNCHS consultants and the professionals from UDD. The formalities for preparation of the plan were started in 1978 (Refer to Map 4.2).

Though the plan was prepared in mid 1980s, it is unknown why the UN consultants used the term 'Master Plan' for Rajshahi City Plan. Because concept of 'Master Plan' was already discarded by planning professionals through the world at that time. The style and manner used to describe the plan does not also coincide with the Master Plans prepared in the 1950s and 1960s for the other major cities of the country.

The plan was to create for a population of 100,000 during the Third Five Year Plan and the additional population of 300,000 inhabitants for the period 1985-2000.
The Plan set its objectives as follows,
- To provide good living conditions for all categories of urban population.
- To promote urban activities and economics through judiciously devised land use pattern, road network and infrastructure.
- To standardised housing area plans to conform to anticipated economic conditions, that is, limiting housing subsidy.

The plan was devised in outline form highlighting only the key proposals. The concern of the plan was physical planning and infrastructure development.

4.4 Implementation Status of the Plan Proposals

The 1984 Master Plan recommended a number of proposals for the further development of the city. All of these were indicative rather than detailed. For most of the proposals the plan recommended further study for the respective proposals. Here is the discussion on the proposals and their present implementation status.

4.4.1 Town Centre

A new town centre of Rajshahi was proposed to be established on the north of Rajshahi Railway station. During the preparation of the Master Plan in 1984, the administrative activities were concentrated in the western part of the city. However, the main business activities were mainly in the southern part of the city. The reasons behind the proposal to establish a new town centre were,
- To preserve the heritage of the city in the southern zone near Shaheb bazar.
- To expedite the physical development of the city towards north and northeast direction.

1 No Organization was given the Responsibility to Implement the Master Plan.
In 1988, the planners of the Development Authority took initiative to establish a new Town Centre on the north of Rajshahi Railway Station. Project Proforma (PP) was also prepared in this regard and land demarcation (for acquisition) was also completed. But the initiative stopped there at that point. There was no further progress in this regard.

During the study, it is identified that the reason behind the non-implementation of the proposed “Town Centre” is due to lack in proper follow up of the earlier initiative. The town planner who took the initiative to implement the Town Centre Proposal, left RDA in 1989 and the procedures of the Town Centre was left along there. During the interview on the purpose of the study, the present Town Planner of RDA could not inform anything about the Town Centre Proposal. Later, the fact came out during studying the papers and relevant documents.

4.4.2 Housing

The 1984 Master Plan proposed a number of Housing projects. These proposed projects were mainly for the low and middle-income group of people of the city. The plan suggested to prepare serviced plots, which would meet the 50% of the total housing demand. Here is a discussion on the implementation status of the housing projects/proposals made in 1984 Master Plan:

- **Arrangement of Serviced Plots**
- **Improvement of condition of Seroil Colony.**
- **Development of 7500 Serviced plots to meet up the need of low-income group of people.**

4.4.2.1 Serviced Plots

The 1984 Master Plan suggested 7500 serviced plots to meet the housing demand of the city dwellers. In the secondary city like Rajshahi, generally there is no private
investment in housing sector. Public agencies are the prime investor to meet the housing demand. During the study it is identified that Housing and Settlement Directorate (HSD) and Rajshahi Development Authority (RDA) are the agencies to develop housing areas for the city dwellers.

Housing and Settlement Directorate (HSD) developed first housing estate in Rajshahi in 1958. After the independence in 1971, RDA became the only agency to develop serviced plots for the city dwellers. Over the last two and half decades, RDA has arranged 1013 plots in three areas of the city. Moreover, the proposals for 904 serviced plots in four different areas of the city are under process and expected to be completed by three years. Here is a brief on the housing estates in Rajshahi City.

Table: 4.1 Present and Upcoming Housing Estates in Rajshahi City

<table>
<thead>
<tr>
<th>Sr No.</th>
<th>Name of the Housing Estate</th>
<th>Number of Plots</th>
<th>Developed for</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Padma Residential Area</td>
<td>565</td>
<td>Middle Income Group</td>
<td>Completed in 1992 by RDA</td>
</tr>
<tr>
<td>2</td>
<td>Parjat Residential Area</td>
<td>56</td>
<td>Middle Income Group</td>
<td>Completed in 1993 by RDA</td>
</tr>
<tr>
<td>3</td>
<td>Shyamoni Residential Area</td>
<td>224</td>
<td>Low Income Group</td>
<td>Completed in 1997 by RDA</td>
</tr>
<tr>
<td>4</td>
<td>Upashanker Housing Estate</td>
<td>1320</td>
<td>Middle and Low Income Group</td>
<td>Completed in 1962 by HSD</td>
</tr>
<tr>
<td>5</td>
<td>Chandrinni Residential Area</td>
<td>392</td>
<td>Middle Income Group</td>
<td>To be completed by 2004 by RDA</td>
</tr>
<tr>
<td>6</td>
<td>Banerota Residential Area</td>
<td>159</td>
<td>Middle Income Group</td>
<td>To be completed by 2006 by RDA</td>
</tr>
<tr>
<td>7</td>
<td>Chapbibhi Residential Area</td>
<td>479</td>
<td>Middle Income Group</td>
<td>To be completed by 2006 by RDA</td>
</tr>
<tr>
<td>8</td>
<td>Mahamanda Residential Area</td>
<td>72</td>
<td>Middle Income Group</td>
<td>To be completed by 2005 by RDA</td>
</tr>
<tr>
<td>9</td>
<td>Prantik Residential Area</td>
<td>203</td>
<td>Middle Income Group</td>
<td>To be completed by 2006 by RDA</td>
</tr>
</tbody>
</table>

Source: RDA Office Record

4.4.2.2 Improvement of Seroil Colony

Seroil Colony is a living place of low-income group of people located on the north of Rajshahi Railway Station. This residential area was developed in 1950s mainly
to rehabilitate the refugee from India and Pakistan. The area was facilitated with roads and water supply. But over the time, due to population growth and lack of proper maintenance of the facilities, the Serail Colony became crowded and unhealthy.

During the study it is known that RDA has so far taken no initiative to improve the condition of the colony, as it would not be a profit-earning project for the authority. 1984 Master Plan suggested the improvement of the colony in respect of widening of roads, construction of pucca drains and making provision for sewage & improved water supply.

No major initiative was taken to improve the unhealthy condition of the colony. Although the City Corporation under the "Safe Drinking Water Supply Project" took a few initiatives, were not good enough to meet the total requirement.

4.4.2.3 Construction of Serviced Plots for Low-income Group of People

The Master Plan suggested Serviced Plots to be constructed on the north of the proposed New Town Centre and other areas of the old town. The plan suggested the serviced plots for housing area with the provision of following facilities.

- Water Supply (Shared pipe)
- Pit Latrine
- Roads
- Electricity

According to the suggestion of the Master Plan, RDA had developed a residential area on an area of 9.91 acres with 224 plots for the low income group of people at the north of the proposed New Town Centre (although the Town Centre Proposal is yet to be implemented). However, the prescribed facilities were not included during the development of the housing area. No initiative was taken for the development of housing areas in the old parts of the city as per the proposal of 1984 Master Plan.
4.4.3 Recreational Facility

There is a lack in proper recreational facilities in the urban areas of Bangladesh. Rajshahi is not an exception. There are very limited facilities for formal recreation (like parks, playground) in the city. River bank is considered to be the only place of recreation for the city dwellers. But the place is not well organized. 1984 Master Plan recommended a number of Recreational Facilities for the city of Rajshahi. The locations for where the proposals were made are as follows. (Refer to Map 4.3)

(a) North Eastern periphery of the city
(b) Construction of parks in the old part of the city.
(c) Developments of recreational facilities along Padma river bank

4.4.3.1 North Eastern Periphery of the City

The northeastern periphery of the city was proposed to be developed as large opening of the city containing water bodies, forest and zoo. The proposed area for the recreational zone was not implemented during the last 25 years. This is because of two following reasons

- No agencies as well as private investor came to develop the area
- Physical limitation of the city (The present end of the built-up area of the city is still about 2 km from the proposed site of the recreational zone.)

4.4.3.2 Development of Parks in the Old Part of the City

The congested areas of the city are in need of open space and parks. The existing open space in the old town areas is not good enough to meet the requirements of the inhabitants. The 1984 Master Plan suggested to develop at least five parks in old town.
Map 4.3 PROPOSED RECREATIONAL AREAS IN 1984 MASTER PLAN

Source. Report of Rajshahi Master Plan, 1984
areas. But the City Corporation as well as RDA had taken no initiative to develop such facilities in the areas.

RDA developed a park on an area of 7.6 acres adjacent to the Padma Residential Area. The park is facilitated with toys for children, large lake, boating facilities and garden. But the location and size of the park is not good enough to meet the demand of the city dwellers.

4.4.3 Development of Recreational Facilities along Padma River Bank

The Padma riverbank was considered to be the prime recreational space for the city dwellers. The river runs on the southern end of the city and there are easy accesses to the riverside from every corner of the city. This large space was proposed to be preserved with plantation and other facilities.

The riverbank was developed under private initiative in mid 1980s. A park was developed in the area and the city dwellers as well as visitors from other parts of the country visit it. About half a kilometer of the park was washed away by the severe flood in 1998. Presently the riverbank is without any formal facilities like sitting arrangements, toilet, toys and tea stall etc.

In 2005 RDA has taken an initiative to develop the riverbank in association with RCC and Water Development Board (WDB). The proposal is presently in its early stage of thinking.

4.4.4 Drainage

According to the Master Plan, the drainage and sewage facilities of the city of Rajshahi were very unhygienic. The plan proposal suggested new network and
improvement of drainage system of the city. The plan also suggested to drainage channel to the north (of the city) to the lower areas with connections to the Baranai River.

4.4.4.1 Drainage Master Plan

With a view to providing adequate and improved drainage facilities in Rajshahi, a Drainage Master Plan was prepared in 1993 by Rajshahi City Corporation. The main objectives of the drainage project are:

a) To discharge existing storm water drainage, solid waste and sanitation issues.

b) To assess the problems and causes of storm water drainage of Rajshahi City Corporation area.

c) To formulate a Master Plan for storm water drainage, solid waste and sanitation for Rajshahi city for the year 2020.

d) To suggest institutional strengthening for effective operation and maintenance of drainage and solid waste services.

Under the Drainage Master Plan of the city of Rajshahi, quantitative scopes of works are as follows.

Table: 4.2 Scope of Work under Rajshahi Drainage Master Plan Project

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Quantity (in km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Drain</td>
<td></td>
</tr>
<tr>
<td>- Kutcha (Resealing)</td>
<td>18.00</td>
</tr>
<tr>
<td>- Kutcha (New)</td>
<td>4.00</td>
</tr>
<tr>
<td>- Pucca (Rehabilitation)</td>
<td>15.00</td>
</tr>
<tr>
<td>- Pucca (New)</td>
<td>1.00</td>
</tr>
<tr>
<td>Secondary Drain</td>
<td></td>
</tr>
<tr>
<td>- Pucca (Rehabilitation) BW</td>
<td>20.00</td>
</tr>
<tr>
<td>- Pucca (Rehabilitation) RCC</td>
<td>7.00</td>
</tr>
<tr>
<td>- Pucca (New) RCC</td>
<td>9.00</td>
</tr>
<tr>
<td>- Pucca (New) BW</td>
<td>6.00</td>
</tr>
<tr>
<td>- Covedral Drain</td>
<td>8.00</td>
</tr>
<tr>
<td>Tertiary Drain</td>
<td></td>
</tr>
<tr>
<td>- Pucca (Rehabilitation)</td>
<td>24.00</td>
</tr>
<tr>
<td>- Pucca (New)</td>
<td>16.00</td>
</tr>
<tr>
<td>- Pipe[300 mm]</td>
<td>14.00</td>
</tr>
</tbody>
</table>

continued
### Project Component Quantities

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Quantity (in km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plot Drain</td>
<td></td>
</tr>
<tr>
<td>- Pucca (Rehabilitation)</td>
<td>22.00</td>
</tr>
<tr>
<td>- Pucca (New)</td>
<td>16.00</td>
</tr>
<tr>
<td>Cleaning &amp; Removal of blockage from existing drains</td>
<td>90.00</td>
</tr>
</tbody>
</table>

Source: Rajshahi Drainage Master Plan 1994

The existing drainage of the city is under improvement by Phase-I of implementation plan. 80% of the Phase-I work are completed. Under this Phase-I Program, original primary drains are re-organised and merged, redesigned and reconstructed as Type –1, 2 and 3 drains. Phase-II works mainly of secondary drains will commence soon. Then the final works will be done. Implementations of 1994 Drainage Master Plan are supposed to meet the drainage congestion of the city. Now in the middle of implementation, original system is disrupted and new system which is incomplete causing more drainage problems. However, better situation will create when the full proposal will be implemented.

#### 4.4.5 Industrial and Commercial Development

The city of Rajshahi is mainly based on its agricultural production. The role of industry is not so remarkable for the economic development of the city. A few major industries, industrial estate at Sopura, public sector organizations, and academic institutions, informal sector and trade & commerce provide major base for economic activities of the city. Agriculture is the major base for economic activities in the extended area. Four growth centres and 12 hats/bazaars in and around RDA area have profound impacts in the city. These markets export surplus agricultural products of the region to other regions of the country.
The Master Plan 1984 suggested a number of sites to be developed as industrial zone (Refer to Map 4.4). However, some projects regarding commercial development were also identified. Here is a discussion on the implementation status of the proposals.

4.4.5.1 Industrial Sites

The 1984 Master Plan identified 7 (seven) new areas to be developed as light and heavy industrial estates. But over the last 25 years there was no development of such activities in the proposed sites. This is simply because of the poor economic base of the city. From a recent survey (in 2002) by the Rajshahi Master Plan project (2001-2020) it is known that about 46% of the plots of Soppura Industrial Estate is still vacant since its establishment in 1961. On the other hand, the existing condition of the other industries are not so good. The Government closed Rajshahi Jute Mill in 2002, as it was a loosing concern. However, Rajshahi Textile Mill is under consideration to be closed soon as is also a loosing concern for the government.

4.4.5.2 Commercial Development

As it is already discussed that the economic base of the city is not so healthy. The industries are being closed and industrial plots being vacant for a long period. But the development authority of the city still trying to develop some commercial plots as well as some markets. Over the last two decades RDA has developed a commercial area (on an area of 18.80 acres with 117 plots) and two markets. Although the markets are functioning well, the plots of the commercial area remain vacant. During the study it is identified that none of the 117 plots of Banolota Commercial area was used for commercial purpose over last 15 years.
Map 4.4 PROPOSED INDUSTRIAL SITES IN 1984 MASTER PLAN

Source: Report of Rajshahi Master Plan, 1984
Table 4.3 Major Commercial Area/Markets in Rajshahi City

<table>
<thead>
<tr>
<th>S1 No.</th>
<th>Name of the Commercial Area</th>
<th>Number of Plots/Shops</th>
<th>Developed By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Banjura Commercial Area</td>
<td>117 (Plots)</td>
<td>RDA</td>
</tr>
<tr>
<td>2</td>
<td>RDA Market</td>
<td>955 (Shops)</td>
<td>RDA</td>
</tr>
<tr>
<td>3</td>
<td>Chandlabaj Market</td>
<td>153 (Shops)</td>
<td>Private</td>
</tr>
<tr>
<td>4</td>
<td>Shahb Bazar Cloth Market</td>
<td>142 (Shops)</td>
<td>Private</td>
</tr>
<tr>
<td>5</td>
<td>Shahb Bazar Jewellery Market</td>
<td>25 (Shops)</td>
<td>Private</td>
</tr>
<tr>
<td>6</td>
<td>Shahb Bazar Book Market</td>
<td>22 (Shops)</td>
<td>Private</td>
</tr>
<tr>
<td>7</td>
<td>Madasia Market</td>
<td>159 (Shops)</td>
<td>Private</td>
</tr>
<tr>
<td>8</td>
<td>Rajshahi New market</td>
<td>250 (Shops)</td>
<td>PWD</td>
</tr>
<tr>
<td>9</td>
<td>Rajshahi Hawkers Market</td>
<td>70 (Shops)</td>
<td>Private</td>
</tr>
</tbody>
</table>

Source: Working paper on Economy and Investment (Rajshahi Master Plan (2001-2020))

4.4.6 Road Network

The internal road network of the city of Rajshahi was not at all impressive in the 1980s. Although non-motorized vehicles dominated the major traffic, the internal road network was mainly narrow and snaking. The Central Business District (CBD) of the city was congested and the city was served by only one major road.

A good number of proposals were made to ease the movement of traffic. (Refer to Map 4.5) The proposals in this regard mainly focused on widening of main city roads, construction of ring road in east-west direction, improvement of roads in congested areas and construction of new roads to encourage development of the city towards north and northeast direction.

Over the last two decades the city of Rajshahi has developed. During this period, a number of road projects were implemented following the recommendation made in 1984 Master Plan.

4.4.6.1 Rajshahi Bypass

The bypass was proposed to ease the traffic jam in the main town. The bypass was proposed on east-west direction in a shape of half circle. The procedure to implement the road started in 1990. In the initial stage RDA started the proceeding and worked to fix up...
the alignment. As the set up of RDA is not good enough to complete the large project, it was transferred to RHD to implement it. The major work of the project is nearly completed and the road is expected to be opened in December 2003

4.4.6.2 Widening and Strengthening of Natore-Nawabganj Road

Natore-Nawabganj road was the main road to and from the city in 1980s. This road passes through the CBD area. The width of the road was (specially near the CBD) only about 20 ft. As a result the area remained crowded and there was continuous traffic jam in the area. RDA took the project in 1977 to make it wide and straight. The 0.76 k.m. road completed in 1990 and the CBD was opened.

4.4.6.3 Construction of Road from Talaimari to Rail Station Road

A large portion (north and north-east) of the city had no direct access to the Railway Station and all vehicles from outside the city had to use Natore-Nawabganj road. To ease the pressure on the Natore-Nawabganj road as well as to give access to a large portion of the city, a road from Talaimari to Railway Station was constructed in 1990. The 80-ft wide road has expedited the mobilization of traffic as well as to reduce the pressure on Natore-Nawabganj road.

4.4.6.4 Shaheb Bazaar to Gourkanga Moor

This is one of the important road proposals made in 1984 Master Plan. Shaheb Bazaar is the main commercial area of the city. Presently the area is connected with the east and west of the city through wide roads. But the trend of development of the city is towards north. The main junction point on the north (Bindur Moor) is about 3 k.m. from the Shaheb Bazaar. Presently the access to Shaheb Bazaar from Greater Road is through narrow snaking road passes between old commercial areas of the city. The area is congested although the day due to narrowar.
Proposal was made in the 1984 Master Plan to construct a wide road to make the communication between Shaheb Bazaar and Airport road fast & smooth. According to the proposal, RDA proposed an 80-ft wide road between Shaheb Bazaar and Bindur Moar. The project was included in ADP in 2001. But later the Planning Commission in 2002 canceled it. RDA is still processing with the important road to be approved. Here is the list of Road Proposals and their implementation status.

Table 4.4 Implementation Status of the Road Proposals made in 1984 Master Plan

<table>
<thead>
<tr>
<th>Name of the Proposed Road Project</th>
<th>Length (in km)</th>
<th>Implementation Status</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajshahi Bypass</td>
<td>22</td>
<td>Expected to be completed in July 2003</td>
<td>RDA</td>
</tr>
<tr>
<td>By Pass Connector Road</td>
<td>3.41</td>
<td>Land Acquisition under process</td>
<td>RDA</td>
</tr>
<tr>
<td>Talaind to Rail station road</td>
<td>3.52</td>
<td>Completed</td>
<td>RDA</td>
</tr>
<tr>
<td>Lavanpur to Kashidanga</td>
<td>5.00</td>
<td>Completed</td>
<td>RCC</td>
</tr>
<tr>
<td>Kalpona Cinema to Cerculture</td>
<td>1.5</td>
<td>Completed</td>
<td>RDA</td>
</tr>
<tr>
<td>Airport Road to Bypass Connector</td>
<td>2.00</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>Shahid Bazaar to Gaurilanka Moar</td>
<td>3.00</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>Greater Road to Women Complex</td>
<td>1.00</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>Court to Darusa Road</td>
<td>3.00</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>BIT to Bypass (4.00 km)</td>
<td>4.00</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
</tbody>
</table>

Source: RDA 2003

Many of the proposed roads are yet to be implemented. This is because of the lengthy procedure of the formalities required to implement a road project. It is observed that it takes 7-8 years for approval and sanction of money for implementation of a road project. On the other hand, the concerned Authority has failed to identify the project in right time.

4.4.7 Proposal and Implementation Status of the Town Protection Embankment

The Existing Town Protection Embankment of Rajshahi City established and built by Irrigation Department of Bengal between 1940-45 and now maintained by Bangladesh Water Development Board (BWDB). The main function of the embankment is to protect...
the existing city from the external floods of the Padma River particularly the extreme high floods. It does not serve the purpose of controlling floods. The length of the Town Protection Embankment was initially about 10 km from the court (Harupur) to Talaimari now extended up to Katakhali. However, the national highway from Natore-Nawabgonj passes through Rajshahi City serves as secondary defense against flood. The existing situation is inadequate for the protection of the future Rajshahi Metropolitan City.

The 1984 Master Plan suggested for Improvement of the Flood protection Embankment of the city. Here is the discussion on the actions taken for improvement of Flood Protection Embankment of the city of Rajshahi.

The Project Concept Paper (PCP) for Town Protection Embankment for the future Rajshahi Metropolitan City had proposed three options for the improvement of the embankment. The option one of the proposed improvements has already been implemented.

According to the option one of the embankment improvement proposal, the eroded portions of the embankment have been repaired from Court Point to Katakhali. The brick mattressing areas along river side slopes have properly been repaired. Straight and T-Groyenes front base and slope areas have been refilled with blocks.

4.4.8 Study for Possible Future Sewerage System of Rajshahi City.

Sewage system is not very common in the context of Bangladesh. Only few cities in Bangladesh possess sewerage system for disposal of sewage and these are either incomplete or implemented partially. Dhaka and Chittagong cities have partial sewerage system without even full pledged treatment plant. As a result, water bodies near by the cities are contaminated. Moreover, development of sewerage system and disposal is
always expensive and quite critical. However in planning for 21st century cities, it is better to propose alternate full pledged sewerage system and its disposal.

According to the proposal for the study for Possible Future Sewerage System for the city of Rajshahi was undertaken by Rajshahi City Corporation during preparation of Drainage Master Plan for Rajshahi City. Here is a discussion on the study.

The following considerations are made to propose separate sewerage and its disposal system for Rajshahi City.

1. Rajshahi City is expected to the urban–rural city development. Urban development part of the city will be high-density area and rural development will be less density area. Urban area only will be served with sewerage system.

2. Sewer lines will be located on the opposite side of the roads against the existing side of the storm water drains and water supply lines.

3. Sewer lines will be mainly tertiary, secondary and main/primary types and will be parallel to storm water drains. Household sewer lines from latrine to tertiary lines are the responsibility of individuals.

4. Outfall area of the sewer lines will be in the opposite direction of the outfall of storm water drains. As a result, sewage lifting stations will be required at junctions to boost up head.

5. At the outfall of the main sewerage line, a sewage treatment plant will be developed to treat raw sewage and after treatment solid waste and liquid will be separated.

6. Solid waste may be used as compost or landfill or will be disposed in the dumping area or proposed solid disposal area. After treatment, liquid waste will be released to Duari Khal, which will be ultimately discharged to Baranai River.
4.4.9 Selection of New site for Waste Disposal

The present Solid Waste Management system of the city is managed by RCC. The City produces about 200 M³ of solid waste daily. These waste are mainly dumped by the city dweller into the local bins. The sweepers of the City Corporation collect these solid wastes and carry it to the dumping sites by truck. Presently the corporation dumps the collected waste at Nawdapara on an area of 5 acres. This area is not sufficient for the disposal of the solid waste in the very near future.

With a view to tackles the situation, RCC has selected a dumping site at the northwest of the By pass and area is expected to be completed for full operation by 2004. The other areas to be used as dumping sites are Roadsides (10 km.), Dumping Ponds and land filling (20 hectar)

4.4.10 Expansion of Water Supply Network of the City

Rajshahi City Corporation (RCC) is mainly responsible for the municipal water supply for Rajshahi City Area. The technical supports for establishment of Deep Tubewells (DTWs), setting of pumps, commissioning of DTWs, water supply and distribution networks, overhead supply tanks and classification plants etc. are provided by the Directorate of Public Health Engineering (DPHE), Rajshahi.

Rajshahi City Corporation possesses now a total of 28 DTWs and Rajshahi Development Authority has 3 DTWs, all of which are commissioned and run by DPHE, Rajshahi. Ten more DTWs have been sunk but these DTWs have been commissioned.

A network of water supply system provides water supply to the households. The network consists of main supply line, secondary supply line and plot or household lines. From the interviews of the DPHE officials, it is revealed that the water supply to the city
areas is insufficient. Presently the pumps of DPHE Rajshahi can supply only about 32,000 m$^3$/day out of total daily demand of 85,000 m$^3$. Some organizations like BIT, Rajshahi University and Medical College have their own water supply and distribution system.

Water quality of the supplied municipal water is poor and is identified as very Hard Water. Supply Water contains excessive amount of Calcium, Magnesium, Manganese and Iron in its soluble form. This water becomes turbid very quickly as it is exposed to open air.

DPHE has established 3 Nos of clarification plants for removing hardness and impurities of supply water.

4.5 Overall Implementation of the Proposals

From the review and analysis of the proposals and their implemented status, it is observed that out of 32 specific projects/proposals 14 have so far been completed, 8 of the projects are under process and the remaining 10 projects are yet to be undertaken by any of the agencies involved for the development of Rajshahi City.

Table 4.5 Comparative Statement of 1984 Master Plan Proposal and its Implementation Status

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Proposal</th>
<th>Implementation Status</th>
<th>Implemented By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation of Drainage Master Plan for the City</td>
<td>Rajshahi City Corporation undertook the project in 1994. The First phase of the project has already been completed. The Second phase of the project is expected to start soon.</td>
<td>Rajshahi City Corporation (RCC)</td>
</tr>
<tr>
<td>2</td>
<td>Improvement of Town Protection Embankment</td>
<td>The Phase-I of the proposal of embankment improvement has already been completed in 2001.</td>
<td>Bangladesh Water Development Board (BWDB), Rajshahi</td>
</tr>
<tr>
<td>3</td>
<td>Selection of New site for Waste Disposal</td>
<td>A site at the north of Rajshahi Bypass has already been selected. The project is expected to be completed in 2004.</td>
<td>Rajshahi City Corporation (RCC)</td>
</tr>
</tbody>
</table>

Continued
<table>
<thead>
<tr>
<th>S1 No.</th>
<th>Proposal</th>
<th>Implementation Status</th>
<th>Implemented By</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Study for Possible Future Sewerage System</td>
<td>A Study has already been completed and Proposals was made in Rajshahi Drainage Master Plan</td>
<td>Rajshahi City Corporation (RCC)</td>
</tr>
<tr>
<td>5</td>
<td>Expansion of Water Supply Network throughout the Urban Areas</td>
<td>Department of Public Health Engineers (PHE) has prepared a master plan to expand its water supply network in the new urban areas</td>
<td>PHE, Rajshahi and RCC</td>
</tr>
<tr>
<td>6</td>
<td>Establishment of a Light Industrial Zone at the east of the RDA Residential Area</td>
<td>The indicated zone was changed through Board Meeting of RDA in 1988 and people are allowed to have land clearance for residential use (But as per the ordinance and Master Plan is concerned board has no power to do such change)</td>
<td>Not Implemented and the Proposal was Changed by RDA</td>
</tr>
<tr>
<td>7</td>
<td>Study on industries to be developed based on agriculture products</td>
<td>None of Such Study was initiated by any of the organizations</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Establishment of Mills and white side Godowns in the industrial areas specified in the periphery of the Town</td>
<td>Large Godowns and Cold Storage are constructed on the Northern periphery of the city,</td>
<td>Department of Agriculture Extension and Private Sector</td>
</tr>
<tr>
<td>9</td>
<td>Development of a project at the north of the RDA housing areas for the low income group</td>
<td>No project was undertaken in this regard</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Housing Project at the north of the Proposed new Town Centre</td>
<td>A residential area on an area of 9.51 acres with 224 plots for the low income group of people has been completed</td>
<td>RDA</td>
</tr>
<tr>
<td>11</td>
<td>Up-grading scheme for the Sewar Colony</td>
<td>No such scheme was undertaken by any of the authorities.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Development of 7560 serviced plots at different areas for the middle income group of people</td>
<td>1015 Serviced plots has already been developed and 904 plots are under process</td>
<td>RDA</td>
</tr>
<tr>
<td>13</td>
<td>Development of New Town Centre at the North of the Rajshahi Railway Station</td>
<td>No project was implemented</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Office Building for RDA</td>
<td>Construction Completed</td>
<td>RDA</td>
</tr>
<tr>
<td>15</td>
<td>Drainification of Local Roads</td>
<td>A number of Intersections have been redesigned and reorganized with street furniture.</td>
<td>RCC and RDA</td>
</tr>
<tr>
<td>16</td>
<td>Construction of Buildings for Bank &amp; Insurance</td>
<td>Not yet Constructed But many of the Banks have purchased land for the construction of their own buildings</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Development of Park and Playgrounds for Children's in five different spots of the congested areas of the city</td>
<td>No project was undertaken in this regard</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Study on the recreational zone to the north east of the city.</td>
<td>No such study has so far been made.</td>
<td></td>
</tr>
<tr>
<td>SNo</td>
<td>Proposal</td>
<td>Implementation Status</td>
<td>Implemented By</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>19</td>
<td>Improvement of the area along the Padma River bank</td>
<td>A proposal is being prepared jointly for RDA-RCC and BWDB</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Construction of Commercial areas at Bus Terminal</td>
<td>A market has been constructed at Bus Terminal</td>
<td>RDA</td>
</tr>
<tr>
<td>21</td>
<td>Construction of Commercial areas at Taltimari Junction</td>
<td>A proposal for construction of a market has already been completed. The project is withheld due to land dispute</td>
<td>RDA</td>
</tr>
<tr>
<td>22</td>
<td>Construction of Commercial area at Banapour Centre</td>
<td>No project was undertaken in this regard</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Rajshahi Bypass (22 k.m.)</td>
<td>Expected to be completed in July 2003</td>
<td>RHD</td>
</tr>
<tr>
<td>24</td>
<td>By Pass Connector Road (3.41 k.m.)</td>
<td>Land Acquisition under process</td>
<td>RDA</td>
</tr>
<tr>
<td>25</td>
<td>Taltimari to Rail station road (3.52 k.m.)</td>
<td>Completed</td>
<td>RDA</td>
</tr>
<tr>
<td>26</td>
<td>Laxmipur to Kasirampur (5.00 k.m.)</td>
<td>Completed</td>
<td>RCC</td>
</tr>
<tr>
<td>27</td>
<td>Kalpana Chuna to Sercyclture (1.5 k.m.)</td>
<td>Completed</td>
<td>RDA</td>
</tr>
<tr>
<td>28</td>
<td>Airport Road to Bypass connector (2.00 k.m.)</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>29</td>
<td>Shahid Burger to Gantamari Mog (3.00 k.m.)</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>30</td>
<td>Greater Road to Women Complex (1.00 k.m.)</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>31</td>
<td>Court to Damu Road (3.00 k.m.)</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
<tr>
<td>32</td>
<td>BIT to Bypass (4.00 k.m.)</td>
<td>PCP Approved</td>
<td>RDA</td>
</tr>
</tbody>
</table>

Source: Rajshahi Master Plan 1984 (Final Proposal). Study from Different Documents and Interviews with Officials

It is observed that many of the projects are yet to be implemented. This is mainly because of the economic backbone of the city. Due to lack in basic economy, the physical development of the city is being hampered and population growth of the city is beyond the project growth. It is to be mentioned here that the present population of RDA area is 5.5 lakh, which was expected to be 8 lakh (as predicted during 1984 master plan).
4.6 Change in land use Pattern in Rajshahi City (1980-2003)

The city of Rajshahi has developed over the last two decades after the preparation of 1984 Master Plan. But as there is no proper indication of future land use proposal in the report, it is very difficult to identify the change in the land use pattern according to the proposal. However, a land use survey report (of 1980) of the city gives an idea on the land use pattern of the city. On the basis of this report and the present land use (land use of 2003) the following analysis on the change in land use pattern has been done.

Table: 4.6 Change in land use Pattern in Rajshahi City (1980-2003)

<table>
<thead>
<tr>
<th>S1</th>
<th>Land Use Type</th>
<th>Year 1984 (Acre)</th>
<th>Year 2003 (Acre)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential</td>
<td>2950.71</td>
<td>4769.54</td>
<td>Increase in Residential Use due to Urbanization</td>
</tr>
<tr>
<td>2</td>
<td>Business and Commercial</td>
<td>4396</td>
<td>3647.78</td>
<td>Increase in Commercial Use due to Urbanization</td>
</tr>
<tr>
<td>3</td>
<td>Administrative</td>
<td>126.59</td>
<td>135.00</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Educational</td>
<td>1868.13</td>
<td>1986.00</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Industrial</td>
<td>874.22</td>
<td>139.22</td>
<td>Increase in Industrial Use due to Urbanization</td>
</tr>
<tr>
<td>6</td>
<td>Public Utilities/Communication &amp; Transport</td>
<td>101.88</td>
<td>141.78</td>
<td>Urban facilities have been increased due to increase in the number of population</td>
</tr>
<tr>
<td>7</td>
<td>Recreational</td>
<td>81.58</td>
<td>175.00</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Open Space</td>
<td>756.78</td>
<td>593.05</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Water Bodies</td>
<td>749.67</td>
<td>448.73</td>
<td>Water bodies are being lost due to the process of urbanization</td>
</tr>
<tr>
<td>10</td>
<td>Special Use</td>
<td>164.98</td>
<td>220.49</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Agriculture</td>
<td>3740.79</td>
<td>1407.77</td>
<td>Agriculture land are being lost due to the process of urbanization</td>
</tr>
<tr>
<td>12</td>
<td>Horticulture</td>
<td>236.20</td>
<td>70.32</td>
<td>Horticulture land are being lost due to the process of urbanization</td>
</tr>
<tr>
<td>13</td>
<td>Road</td>
<td>1032.63</td>
<td>1201.64</td>
<td>Increase in the number of roads</td>
</tr>
<tr>
<td>14</td>
<td>Railway Line</td>
<td>32.10</td>
<td>32.10</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Embankment</td>
<td>12.65</td>
<td>12.65</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Total</td>
<td>13823.07</td>
<td>11828.07</td>
<td></td>
</tr>
</tbody>
</table>

Source: Land use survey by HJR in 1980 and Land Use Survey by DDC in 2003

No remarkable change in land use is observed over the last two decades. In the process of urbanization, agricultural lands are being lost to residential and other uses. It has already been discussed earlier that the economic activities in Rajshahi city is very slow. The situation also reflects in the case of change in land use in industrial and commercial sector. However, the decrease in the land use of water body, Horticulture and open spaces is observed over the last two decades.
Chapter 5

CAUSES OF IMPROPER IMPLEMENTATION
Chapter 5: CAUSES OF IMPROPER IMPLEMENTATION

5.0 General Statement

Rajshahi Development Authority is considered to be the prime agency for preparation and execution of the Master Plan for the city of Rajshahi. Although Rajshahi City Corporation is provided with the same power to prepare a Master Plan, the agency took no step to prepare any Master Plan for the physical development of the city. As a result, RDA has become the authority responsible for preparation, review, caretaker as well as coordinator to execute the plan with the help of agencies involved for different development activities of the city.

During the study, a number of causes have been identified on improper implementation of Rajshahi Master Plan. This is due to various reasons including lack in plan preparation, political influence, lengthy procedure in project approval, economic development of the city etc. The present section will discuss the causes behind improper implementation of the Master Plan.

5.1 Deficiencies of Plan Preparation

A number of limitations were identified in the preparation of the 1984 Master Plan prepared for the city of Rajshahi. The issues are discussed as follows.

5.1.1 Legal Validity

Regarding legal validation of official approval of the city plans, the RTDA Ordinance, 1976, in its section 15, makes the provision that out of three categories of plans/schemes the General Development Plan and Functional Master Plan shall have to be notified in the official gazette, and such notification shall conclusive evidence that the plan has been duly made and approved by the Government. But so far no
evidence could be traced in RDA records that any such gazette notification had been made regarding 1984 Master Plan.

5.1.2 RTDA Ordinance of 1976 and the Plan Type

The plan prepared for the city of Rajshahi in 1984 was entitled, 'Master Plan' and it was a single plan. But the RTDA Ordinance 1976 makes provision that the city plan shall be prepared in two stages. First, a General Development Plan shall be prepared in outline form showing mainly the major infrastructure. It would lay down policies of long term development. Next the Functional Master Plan shall be prepared indicating detailed land use zoning, infrastructure and all categories of development details. But the plan of 1984 did not follow these provisions of the Ordinance. It prepared a plan called 'Master Plan' in the style of Master Plans of Dhaka, Chittagong and Khulna prepared in late 1950s and early 60s.

5.1.3 Duration of the Plan

The plan did not set a time frame for its implementation or validity. So the Authority is unable to conceive when the plan period ends and a new plan to be prepared to replace it. The plan however, made a forecast of population for the planning area up to the year 2000. It is apprehended that the duration of the plan was probably for 15 years.

5.1.4 Preparation of Land Use Map

The 1984 Master Plan was also beset with numerous problems from its initial stage. A proper methodology was not followed during the preparation of 1984 Master Plan. This has resulted in a number of problems during implementation. The shortcomings of the plan are discussed as follows.

Firstly, the land use proposal map was prepared on the basis of gross survey rather than a detailed survey. Moreover the land use map was not superimposed on
the mouza map (land ownership indicative map). As a result it is nearly impossible to identify the proposals in the real field. The development authority is still using the faulty ambiguous map for land use clearance.

Secondly, the land use proposals were not indicated for the entire Master Plan area. The indication of the land use proposals was limited in the built up area only. Outside the built up area, there no indication of land use was marked. Over the time the city had developed physically and the non-indicated areas have came under consideration of issuing land use permission. During the study it is known that there is no control/guided rules to issue land use permission in the (non land use marked) areas.

5.1.5 People's Participation

There was no provision of people's participation during preparation of 1984 Master Plan as there is no provision of such activity in the RTDA ordinance. This has kept the people of the city away from the plan. During the interview with the local elites it is known that as the fact about the plan was not well known to the majority of the people, they do not bother to take any kind of permission either to use land or to build a structure.

5.2 Review of the Plan

The Master Plan, which was prepared by the UNCHS and UDD consultants, was left as it is since 1984. No initiative was taken to review the Master Plan over the time, which is very essential for the continuation of planning process. The time-to-time review of the Master Plan was absent over the time because of the insincerity of the planners (responsible to look after it). During the study it is identified that for a long period of time the plan was handled either by a non-planner or none. Here is a
list of the background qualification of the professionals posted as Chief Town Planner and Assistant Town Planner in Rajshahi Development Authority.

Table. 5.1 Chief Town Planner and Assistant Town Planners of RDA (1977-2003)

<table>
<thead>
<tr>
<th>Position</th>
<th>Duration</th>
<th>Academic Qualification of the Person Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Town Planner</td>
<td>September 1977 to December 1977</td>
<td>B Sc Eng</td>
</tr>
<tr>
<td></td>
<td>January 1978 to March 1978</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>April 1978 to May 1985</td>
<td>MPP (Background in Sociology)</td>
</tr>
<tr>
<td></td>
<td>June 1985 to January 1989</td>
<td>None</td>
</tr>
<tr>
<td>Chief Town Planner</td>
<td>February 1989 to Date</td>
<td>MURP (Background in Agro-Economics)</td>
</tr>
<tr>
<td>Assistant Town Planner</td>
<td>February 1979 to August 1988</td>
<td>MURP (Background in Geography)</td>
</tr>
<tr>
<td></td>
<td>September 1988 to April 1991</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>May 1991 to October 1998</td>
<td>B Sc Eng (Civil)</td>
</tr>
<tr>
<td></td>
<td>November 1998 to March 2001</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>April 2001 to Date</td>
<td>BURP</td>
</tr>
</tbody>
</table>

Source: RDA Office Record.

During the study it is also identified that the position of Chief Town Planner of the Authority was remained vacant for about 4 (four) years soon after the preparation of the 1984 Master Plan and the position was started with a person who was not even a planner. However, the position of Assistant Town Planner was remain vacant for 6 (six) years (1988-1991 and 1999-2001) and the post was occupied by a non-planner for long 7 (seven) years (1991-1998). In one side the authority is in shortage of required numbers planners, on the other hand the positions were either vacant or occupied by non-planners which has disrupted the time to time review option. Both of the situations have resulted a serious problem in planning practice and review of the plan (which was very much essential).
5.3 Legislative Power of the Planners

Planners working in the development Authority are considered to be the prime professionals to give guidelines for the planned development of a city. But they are provided with limited power to execute the idea or to control the unplanned development. It is very often that the prime decision-maker of the authority overlooks the ideas of the planners. During the study a number of cases have been identified where the logical opinions of the planners have been ignored.

5.3.1 Case Study No. 01: Extension of Rajshahi Cantonment Area

Rajshahi Cantonment is established on the northwest of Upashahar Residential Area. During the establishment of the Cantonment the area was considered to be located outside the city area. But, over time the city has extended physically towards the north, northeast and northwest direction. As a matter of fact, the present position of the Cantonment (which is a restricted zone for the city dwellers) has become located inside the city area.

Under this circumstance, the Cantonment Board applied to the Town Planner for land use clearance for the extension of the present cantonment area towards north and northeast of its present position. The proposal made by the Cantonment Board will surely make problems for the future physical development of the city as well as will hamper the free movement of the city dwellers (as in Dhaka). Pointing out the fact (that the Cantonment extension proposal would surely make a problem for the city development and NOC should not be issued), the Town Planner raised the issue to the board meeting of the Authority. The board did not consider the logical opinion of the town planner and gave permission to extend the area of the Cantonment.
5.4 Lengthy Procedure of Project Approval

Project approval is a very lengthy procedure in Bangladesh. It is observed that it takes about 5/6 years on an average for the final approval of a project to complete formalities. On the other hand, the sectoral allocation in ADP is not always so healthy to start a much-needed project in time.

The projects of RDA need the following steps to be completed before their implementation:

**Step 01**: The Authority prepares a project proposal for a particular project.

**Step 02**: The Project Proposal (PP) is then sent to the Planning Cell of the Ministry of Housing and Public Works for necessary review.

**Step 03**: The Ministry of Housing and Public Works then sends the PP to the Physical Planning Cell of Planning Commission after necessary corrections (if any).

**Step 04**: The Physical Planning Cell of Planning Commission sends the PP for Pre-ECNEC for the approval after necessary corrections (if any).

**Step 05**: If the Project Cost is more than 10 crores then it is sent to ECNEC for approval.

**Step 06**: The Authority is given permission to start the project by the Ministry of Housing and Public Works and the project starts.

Table 5.2 Duration of Project Preparation.

<table>
<thead>
<tr>
<th>Sl no.</th>
<th>Name of the Project</th>
<th>Year of Starting</th>
<th>Year of Completion</th>
<th>Required Number of Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rajshahi Master Plan 1984</td>
<td>1978</td>
<td>1984</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Padma Residential Area</td>
<td>1978</td>
<td>1992</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Patjat Residential Area</td>
<td>1990</td>
<td>1992</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Chawangi Residential Area</td>
<td>1991</td>
<td>1997</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Banobita Commercial Area</td>
<td>1978</td>
<td>1995</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>Widening &amp; Straightening of Natore-Nawabganj Road</td>
<td>1977</td>
<td>1990</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Greater Road Extension</td>
<td>1981</td>
<td>1990</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>Road from Kalpona to Serculture Board Gate</td>
<td>1993</td>
<td>1998</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Development of RDA Market</td>
<td>1982</td>
<td>1990</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>Establishment of Bus Terminal</td>
<td>1982</td>
<td>1990</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Establishment of Park</td>
<td>1978</td>
<td>1995</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Planning Section, RDA
During the study, it has been seen that RDA has so far completed 11 projects. The minimum time required for the completion of all formalities was 3 years. While the maximum was 17 years. It is observed that the completed projects of RDA were required more than 9 years on an average to complete all formalities. Here is a list of projects, which are being continued.

Table: 5.3 On-Going and Up-Coming Projects of RDA

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Name of the Projects</th>
<th>Started Year of Initiation</th>
<th>Expected Year of Completion</th>
<th>Present Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation of Structure Plan, Master Plan and Detailed Area Development Plan for Rahabu Metropolitan City</td>
<td>2001</td>
<td>2004</td>
<td>The project is ongoing</td>
</tr>
<tr>
<td>2</td>
<td>Construction of Inter district Bus Terminal</td>
<td>1997</td>
<td>2003 (December)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3</td>
<td>Construction of Modern Market at Talima</td>
<td>1998</td>
<td>2003</td>
<td>The project is withheld due to Litigation</td>
</tr>
<tr>
<td>4</td>
<td>Chandana Residential Area</td>
<td>1995</td>
<td>2004</td>
<td>Earth filling work is ongoing</td>
</tr>
<tr>
<td>5</td>
<td>Expansion and development of Bahadnai Residential Area</td>
<td>1995</td>
<td>2002</td>
<td>The project is approved by inter Ministry meeting of Planning Commission</td>
</tr>
<tr>
<td>6</td>
<td>Development of Chavahit Residential Area</td>
<td>1998</td>
<td>2001</td>
<td>The project is approved by inter Ministry meeting of Planning Commission</td>
</tr>
<tr>
<td>7</td>
<td>Development of Mahananda Residential Area</td>
<td>1995</td>
<td>2002</td>
<td>PCP is under consideration at Ministry</td>
</tr>
<tr>
<td>8</td>
<td>Development of Pranika Residential Area</td>
<td>1996</td>
<td>2002</td>
<td>PCP is under consideration at Ministry</td>
</tr>
<tr>
<td>9</td>
<td>Construction of Connecting Road from Guner Road to Bypass Road</td>
<td>1998</td>
<td>2003</td>
<td>The project is approved by HCNPC. Land acquisition work is ongoing</td>
</tr>
<tr>
<td>10</td>
<td>Construction of Road from Air Port Road to Bypass Connecting Road</td>
<td>1999</td>
<td>2005</td>
<td>Project PCP is recommended for approval at inter Ministry meeting of Planning Commission</td>
</tr>
<tr>
<td>11</td>
<td>Widening of Road from Sahib Bazar to Ghorimaya Mar</td>
<td>2001</td>
<td>2004</td>
<td>The Project PCP is in Planning Commission for consideration</td>
</tr>
</tbody>
</table>

Source: RDA August 2002

5.5 Political Interference in the Change of Land Use Proposals

The land use control mechanism of the development Authority is often hampered by political and administrative influence. In the normal Procedure for land use permission, the town planner rejects an application for land use clearance, if it is
different to the indicated land use in the prevailing Master Plan. In most of the cases, the person being rejected by the Town Planner makes appeal to the Chairman of the Authority for the consideration of the land use clearance. Such issues are raised during board meeting and most of the cases the decisions go in support of the applicant (although it differs from the Master Plan proposal). The board does not consider the opinion of the Town Planner during the controversial resolution.

In some of the areas, board has taken decisions to change the entire land use. This is a serious violation of Master Plan. According to the rules, it needs approval of the ministry to change any land use proposal of the Master Plan. But during the study, it is identified that the board of RDA had taken a number of decisions, which is against the regulation. Here are some of the examples of the decisions as mentioned below.

5.5.1 Change of Industrial Proposal at Khulakhali & East of Padma Residential Area

The 1984 Master Plan proposed a number of sites to be developed as light and heavy industrial area in different parts of Rajshahi City. These areas were also demarked in land use proposal map. But without any reasonable ground, the land use zoning of these areas were changed in a general meeting in 1988. It was only 4 years after the completion of the Master Plan. It is sure that no remarkable change in land use had taken place in that short period of time. But still the board did it.

The area of Katakhali Bazaar area which was declared as industrial area in the Master Plan was changed into commercial land use zone and the area east to the Padma Residential Area which was marked as light industrial zone was brought under residential zone.
5.6 Unbalanced Urbanization and Trend of Development

Public policy in Bangladesh has increasingly been concerned with population distribution and urbanization trends. This is due to the fact that past pattern of economic and urban growth has tended to be spatially concentrated in the central region with Dhaka as the primary city of Bangladesh. This has thus generated not only inter-regional disparities in the level of economic welfare but also undesirable and unbalanced population distribution. This makes it economically as well as politically necessary for the Government of Bangladesh to adopt a new development strategy of decentralized urbanization through current rural and urban planning activities to correct the spatial imbalance in development pattern. Urbanization policy and urban interests are now beginning to be reflected more in the planning activities of the Bangladesh Government. Improving physical facilities of living through formulating appropriate policies and undertaking programmes being the major concern of development plan (PPW & HS: Fifth Five Year Plan 1997-2002)

The outstanding features of urbanization trends in Bangladesh are. tendency to metropolization on the one hand, and the low level of urbanization in other urban centres. This is expressed in the fast growth of metro-Dhaka that includes about 8.05 percent of the total population of Bangladesh, which now has about 123.15 million people. Approximately more than one-third of the growth of urban population between 1991-2001 occurred in metro-Dhaka. So the growth of urbanization in Bangladesh can be attributed largely to the urbanization of metropolitan city of Dhaka.

As mentioned earlier, more than one-third of the growth in urbanization may be attributed to Metro-Dhaka. It is for this reason that the relative weight of the urban population of the remaining regions in Bangladesh (viz. Chittagong, Khulna,


Rajshahi, Sylhet and Barisal Division) is low. From 1974 to 2001 an increase in the relative share of the central (Dhaka) region and a decline in that of the remaining regions are evident in the following table.

Table 5.4 Distribution of SMA Population during the Period 1981, 1991 and 2001

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>3409311</td>
<td>39.93</td>
<td>6950926</td>
<td>64.09</td>
<td>9912908</td>
<td>66.13</td>
</tr>
<tr>
<td>Chittagong</td>
<td>1391877</td>
<td>24.32</td>
<td>2348428</td>
<td>21.65</td>
<td>3202710</td>
<td>21.37</td>
</tr>
<tr>
<td>Khulna</td>
<td>646359</td>
<td>11.80</td>
<td>1001825</td>
<td>9.24</td>
<td>1227239</td>
<td>8.19</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>253740</td>
<td>4.43</td>
<td>544649</td>
<td>5.02</td>
<td>646716</td>
<td>4.31</td>
</tr>
<tr>
<td>Total</td>
<td>5722287</td>
<td>100.00</td>
<td>10843822</td>
<td>100.00</td>
<td>14989373</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: BBS Report

It appears that the decline in relative share of the urban population in the Northern region (Rajshahi) is the largest among the regions and this again proves the trend to realization of the northern region. The distribution of SMA population during the last twenty years indicates steady rise of Dhaka SMA population during 1981, 1991 and 2001 and Khulna & Chittagong population declining gradually. Rajshahi shows slight increase from 1981 to 1991, then again a declining trend from 1991 to 2001 SMA populations.

5.7 Geographic Location of the City

Within Rajshahi Division, Bogra currently represents the fastest growing district because of its geographic location. The surge in development triggered by the development of irrigation, small and medium scale industries in particular have put Bogra ahead of Rajshahi. The case of Bogra emphasizes the need for investments in agriculture and industries. Bogra is reaping the benefits of the increased transport and other activities promoted by the opening of the Jamuna Bridge. As Bogra emerges as
the hub of transport and other economic activities of the region, the importance of Rajshahi is being deteriorating day by day. However, an area such as Naogaon’s entrepreneurs currently prefer to get supply and services from Bogra rather than Rajshahi. This is one of the reasons, which has resulted in the slow pace and back-log of economic development for the city of Rajshahi.

5.8 Absence of Proper Planning Practice

During the study, it has been observed that the function of planning section of Rajshahi Development Authority is far beyond the required professional planning practice. Until 1990, the section used to prepare Project Proforma (PP) for different projects. Presently, the section issues the land clearance for land use. But there is no practice regarding planning activities. The RTDA ordinance specifies a number of activities related to planning practice, which were never followed by any of the planners.

5.9 Overlapping of Activities

It is identified that there are overlapping of activities among the agencies involved in the development of Rajshahi City. This has created problems for the implementation of projects in priority basis. In some of the cases, it has created serious problems in future development of the city. Here are some case studies on the overlapping areas as identified in the case Rajshahi.

5.9.1 Construction of Road

There are five organizations responsible for construction of Roads in Rajshahi City area. But there is no specification for the organizations in this regard. As a result, conflict raised in the past during construction of major roads in the city. A number of important roads have not been implemented due to non-specification of activity in the
city command area. The organizations involved in construction of roads in Rajshahi City area are:

- Rajshahi City Corporation (RCC)
- Rajshahi Development Authority (RDA)
- Roads and Highways Department (RHD)
- Local Government Engineering Department (LGED)
- Berendro Multipurpose Development Authority (BMDA)

5.9.2 Preparation of Master Plan

During the study it is identified that there are three different organizations, which hold power to prepare Master Plan. Rajshahi Development Authority as well as Rajshahi City Corporation has almost same power to prepare Master Plan for the city. However, the Cantonment Board has full authority to prepare Master Plan for the area they feel required for their purpose. In the case of Rajshahi, the city corporation has never prepared any Master Plan for the city. But the cantonment board is preparing a Master Plan for the use of the cantonment, which is contrary to the Master Plan of 1984 prepared by Rajshahi Development Authority.

5.9.3 Housing

Both RHD, RCC and RDA are the three departments to layout and three layout of lands and develop as residential area. But during the past it has been identified that RCC has no role in the development of housing schemes except some rehabilitation works in slum areas. HSD has big role in housing development during Pakistan period. But after the independence of Bangladesh in 1971, RDA is the only organization to contribute in the Housing Sector.
5.9.1 Sanitation and Drainage

RDA and RCC have the same power to execute sanitation and drainage schemes for the city of Rajshahi. But in reality, RCC is the contributor in sewerage and drainage projects of the city. RDA installs drains only in its own developed Residential and Commercial areas.
Chapter 6: CONCLUSION

6.0 Summary of Findings

1. Planning Practice in Bangladesh

The Planning practice in Bangladesh region dates back to 5th Century A.D. During this period, the ancient settlements like Mahastangar, Paharpur and Mainamati were established in the region. After that time this region was mainly treated as a centre of agriculture. After the division of India, the situation of the region started to change. A large number of refugees migrated into Bangladesh from the neighboring India. But the country had not enough strength to provide shelter to the huge number of refugees. As a result haphazard development as well as slums & squatters developed in the urban areas of the country.

2. Initiatives of Physical Planning in Bangladesh

With a view to mitigate the problems associated with immigration, the government of East Pakistan took initiative for planned development of the urban areas. Development Authorities were established in the big urban areas like, Dhaka, Chittagong and Khulna, in the mid 1950s. During the same period the government had created Housing Wing to accommodate the refugees in different parts of the country. Basically this was the start of physical planning in Bangladesh. Master Plan was prepared for Dhaka, Chittagong and Khulna respectively in 1959, 1959 and 1961 by the respective development authority. Housing and Settlement Directorate established a number of housing estates in different parts of the country. In 1965 the government created a new physical planning organization as Urban Development Directorate for the survey and
physical planning of the urban centres other than Dhaka, Chittagong and Khulna. This physical planning organization prepared a Master Plan for Rajshahi City in 1965.

3. The Urban Pattern of Rajshahi City

Rajshahi is the fourth Metropolitan Cities in Bangladesh situated on the bank of river Padma. Rajshahi became the district town back in 1825 when the Headquarter was shifted from Natore and it became divisional headquarter in 1947. The city is important in education point of view of the northeastern part of the country. The educational institutes like University, Medical College, Engineering Institute, Survey Institute and colleges serves the education demand of the eastern districts of Bangladesh. The city is also famous for its silk and Mango. The Municipality of the city was established in 1876. Later it was upgraded and achieved the status of City Corporation in 1987. In 1976, the government established Rajshahi Town Development Authority for planned development of the city and its surrounding areas. The first Master Plan of the city was prepared in 1968 by Urban Development Directorate. In 1984, Rajshahi Town Development Authority prepared Master Plan for the city with the association of UDD, UNCHS and UNDP. Over the last 20 years the city has developed after the plan. As the time period of the 1984 Master Plan is over, the Development Authority has taken initiative to prepare a new Master Plan for the city. The preparation of the new Master Plan started in 2001 and expected to be completed by 2004.

4. Master Plans for the City of Rajshahi

Urban Development Directorate first took initiative to prepare Master Plan for the city of Rajshahi. The local experts of UDD prepared the plan. This was basically a land use type Master Plan. The plan was prepared with a view to guide the development of the
city to some extent. As the plan was prepared without proper survey and investigation, its proposals were ambitious rather than practical. The 1968 Master Plan was not implemented due to a number of reasons. Firstly, the independence of the country which made change in the whole decision-making process in the national policy. Secondly, there was no implementing agency of the Master Plan in reality. RDA prepared the second Master Plan of the city in association with UDD, UNCHS and UNDP in 1984. This was also a land-use type Master Plan indicating the growth direction of the city, its major road network, housing areas, industry, recreational areas and a number of proposals for the further development of the city.

5. The proposals of 1984 Master Plan

In 1984, the main administrative and commercial activities were located respectively in the western and southern part of Rajshahi City. The southern part is the old city area, which holds heritage of the city of Rajshahi. The 1981 Master Plan made a suggestion to make a new town centre on the north of Rajshahi Railway Station to avoid more haphazard development as well as to keep the heritage of the city in the old town area intact. Although initiative was taken in the past (in 1988) to implement the town centre proposal by RDA, it has not yet been realized due to inadequate or lack of initiatives.

A number of proposals were made to meet the housing demand of Rajshahi City. These were including preparation of serviced plots for middle and low-income group of people and upgradation of slum & slum like areas. Rajshahi Development Authority has taken a good number of schemes to provide housing facilities for the city dwellers. Over the last 20 years, the Development Authority has developed about 950 plots in four
different areas of the city. However, the projects of about 800 new plots in three different areas are under process. But the main problem is that most of the housing areas are being prepared for the middle and higher income group of people. As a result, the low-income groups of people are being deprived again and again. The upgradation proposal of Serul Colony (an area of low-income people) has not been considered by the Development Authority.

There is lack in recreational facilities in Rajshahi City like other cities of Bangladesh. There are few formal recreation areas in the city. The 1984 Master Plan proposed a number of sites to be developed as recreational spots for the city dwellers. But during the study it is identified that none of the proposals has so far been implemented. Although RDA has developed a park in the eastern part of the city, it is far beyond the demand of the city dwellers.

During the study it has been identified that Rajshahi City Corporation has taken initiative to develop the drainage system of the city. A 20-year plan was prepared by the corporation for the development of the drainage system of the city. The first phase of the Drainage Master Plan is completed. The ongoing drainage project, apart of the 1984 Master Plan has been successfully implemented.

6. Lack of People’s Participation during Preparation of Master Plan

People’s participation is a much-needed role in the implementation of any project/programme/Master Plan. Master Plan for a city/town is generally prepared for the overall development, which is not without its people. Therefore, it is a necessary option to include the opinion of the people during preparation of a plan so that the need and hope of the people reflects in the plan. This is a prerequisite for the successful implementation.
of a Master Plan also. But during the preparation of Rajshahi Master Plan in 1984, the opinion of the people was not included in any stage. As a result, it took a long time to introduce the people with the plan as well as with the activities of the development authority. The option for people's participation during the preparation of Master Plan is not also included in the RTDA ordinance.

7. Legal Validity of the Master Plan

Legal Validity of any document is an essential requirement as it deals with a number of issues. A Master Plan is an important document, which deals with a number of issues and policies. As per the RTDA ordinance, the plan prepared by the authority needs to be approved by the Government through the procedure of Gazette Notification. During the preparation of 1984 Master Plan no such formalities was maintained (no documents or information was available in this regard from RDA officials). But the plan is being used for last 20 years for the important issues like land use control and development, installation of infrastructure etc. The issue (that the plan does not have legal validity) has not so far been raised in any stage of implementation neither by an organization nor by any person. As a result it seems to be OK in legal respect.

8. Implementing Agency of the Master Plan

It is very important that there must be an agency to implement a Master Plan. Otherwise it is nearly impossible to execute the plan proposals properly. Studying the implementation status in the case of Rajshahi City, it has been seen that the Master Plan of Rajshahi City (which was prepared by UDD in 1968) was not implemented, as the responsibility was not given to any particular organization. But if there was any
Development Authority at that time like Dhaka, Chittagong and Khulna then the implementation of this Master Plan was possible

9. Economic Condition and Geographical Location

Although Rajshahi is a divisional city, it has not that much of importance in economic point of view due to its geographical location. The economic base of the city is not so strong. The main occupation of the city is service and informal activities. A little portion of the people is engaged with the industry-based occupation. Moreover, the number of population in Rajshahi SMA has declined over the last two decades. The population in Rajshahi SMA was 4.43%, 5.02% and 4.31% respectively in 1981, 1991 and 2001. These entire situations have a major impact on the physical development of the city. The physical expansion of the city over the last 20 years is not so remarkable.

10. Political Influence in Implementation of Master Plan

The implementation of proposals is often hampered by the political influence/pressure. The composition of RDA is with an eleven-member board including three non-official members, appointed by the Government. As there is no specific criterion of these persons to be nominated as board member, it's the ruling party man gets nomination by the government. These three political members make pressure to do irregularities in different decisions during implementation of Master Plan. A good number of such irregularities have been identified during the study, which was due to the influence of political interest.

11. Involvement of Agencies in Development

There are as many as 30 major agencies involved for the development of various activities in Rajshahi City. These agencies are responsible for development of different
sectors. Still there is some overlapping of activities among these agencies. As a result sometimes it creates problems in some of the sectors. Generally the agencies are interested to do profit earning activities rather than service-oriented activities. However, there is no co-ordination among the agencies in working areas.

There is definite shortage in proper planning practice in Bangladesh. Rajshahi is not exception. In one side the number of planners is short in Rajshahi; on the other hand the existing planners are far away from proper professional planning practice. This is one of the major causes behind difficulties in plan implementation. Moreover, as a professional body, Bangladesh Institute of Planners (i.e. BIP) should have had a significant role in the upgradation of professional practice of the planners, formation of Planning Standards for the cities of Bangladesh and research work for the Urban and Rural areas of the country. But, over last 27 years, BIP did not perform such activities and had no role to improve the quality of planning practice.

6.1 Recommendation

To overcome the problems identified during the research, the following recommendation may be taken into account.

1. Ensure People's Participation during Preparation of Master Plan

During the study it is identified that the 1984 Master Plan of the city of Rajshahi was not prepared according to the type prescribed in the Ordinance and people's participation was ignored during the preparation of the plan. RDA has recently taken initiative to prepare Structure Plan for the city of Rajshahi for next 20 years. The preparation of the plan started in 2001 and expected to be completed by 2004. Up to the present stage (The Inception Report is completed) of the project, the opinion of the
people is yet to be taken. So, the authority should take/make necessary option for people’s participation during the proposal stage. This is very much necessary to include the people’s participation during the planning stage rather than hanging the map after completion of the proposals for people’s opinion. Necessary steps should be taken after completion of the on-going Master Plan by RDA complete all formalities for the legal validity of the plan.

2. **Ensure the Implementing Agency of the Master Plan**

   The first Master Plan for the city of Rajshahi was not properly implemented due to lack in proper ownership/ caretaker/implementing agency. UDD is presently dealing the projects (yet to be finalized) to prepare Master Plans for the new divisional towns Barisal and Sylhet. Necessary steps should be taken to hand over the plan to the existing City Corporation of the respective towns as an implementing agency of it. Otherwise the proposals of the plans will remain unimplemented.

3. **Re-activate of Upazila Concept**

   Utilization of local resources like agriculture products can be emphasized to develop agro-based industries to uplift the economic base of the city. However, the national policy for decentralized urbanization, which led to introduction of “Upazila Concept” (1983) with the purpose of providing social and economic development should be reactivated soon.

3. **Amendment of the RTDA Ordinance**

   It is identified that the non-official board members of the authority often creates problems in smooth functioning of planning activities through political influence. The composition of the authority with the inclusion of three non-official members (which is
considered to the representation of the general people) is unavoidable. To reduce the political pressure through the non-official members, the present option of appointing non-official members should be amended. Professionals like engineers, planners, professors and lawyers etc. may be the criteria to be nominated as non-official members of the board to be appointed by the Government.

4. *Formulation of Co-ordination Cell*

There is some overlapping in activities among the organization responsible for the development of Rajshahi City. This situation often creates problems. To reduce the conflict among the agencies, a Co-ordination Cell with members from all leading agencies can be formed headed by the City Mayor. This cell can also act as co-ordination of the Master Plan implementation.

5. *BIP to Ensure Professional Planning Practice*

Although the planning activities are not very new in Bangladesh, it is identified that there is a serious lack in proper planning practice. This is due to the number and quality of present planners in different organizations. The Bangladesh Institute of Planners (BIP) may take necessary steps to improve the quality of planners in professional practice, provide a guideline of Planning Standard, arrange regular training and open discussion about Physical Planning.

7. *Relocating Industries*

Rajshahi is mainly a university town. It thrives mainly on production and sale of mango & litchi. Though mango is one of the main cash crops of Rajshahi but there is no preservation system to supply for all the year round even in Rajshahi City. As a result, all the production needs either to eat within the city or to supply only Dhaka City. Because
due to bad communication there is no way to reach this expected fruit with in a time frame and a reasonable price other than rotten. This situation is almost same for Hilsha Fish during rainy season. Sometimes this seasonal fish may need to throw out in the river due to lack of proper preservation facilities. So, if there is some kind of canning industries then the above situation will be tremendously improved. Moreover, there is a possibility to set up meat processing industry in Rajshahi. This is because of a large number of imported livestock from India.

8. Improving Communication System

Rajshahi does not possess important economic and administrative functions as that of Dhaka or Chittagong. Actually, there were very few initiatives taken for growth. It is not easily accessible by land, air or water transport. Though now the road communication system from Rajshahi is far better than earlier but it is only limited with Dhaka to Chittagong rather than other parts of the country. Moreover, there is a tendency among us to think about only Dhaka based and accordingly preference is given. In that case, other parts of the country are depriving to get the juicy mangoes and Hilsha fish in due time with a reasonable price. There is another example in case of silk production. The entrepreneurs of different parts of the country are not interested to rich their business with that of silk. The one of the reasons of this drawback is lack of good and cheapest communication.

9. Increase of Trade and Commerce

From the above discussion, it has been found that if some canning industries and communication systems (air, road, rail and road) are developed there will be multiplier effect in terms of employment as well as boost up of economy. To expedite this situation,
government as well as locally elected parliament member and private entrepreneurs should take necessary steps. For example, through establishment of commercial infrastructures such as international hotel and market may increase trade and commerce as well as employment and economy with other parts of the country.

10. Increase of Trade with India

Bangladesh have bilateral trade relations with India. Sonamasjid Land Custom Station is an important transit point for land-based trade with India. There are good prospects for increase in trade volume with India in the future. This will however, depend on political will and spirit of cooperation between the two countries. A railway link with India via Sonamasjid transit point and Rajshahi over Jamuna Bridge to Dhaka will greatly facilitate bilateral trade between the two countries. This possibility will have tremendous impacts on the economy of the region in terms of linkage effects and transportation services as well as boost up the tax base.

12. Development of Padma River Bank As Recreational Spot

The long strip along the north bank of River Padma presently serve as the recreational spot of the city dwellers. But the area is not organized at all. There is no facilities like sitting arrangement, boating, lighting etc. The area should be developed with some facilities like gardening, sitting arrangements, lightings, cable car, toys for children etc. Moreover, floating restaurant can be a good addition to increase the attraction of the recreational spot. Rajshahi Development Authority with the association with Rajshahi City Corporation & Bangladesh Water Development Board can play a vital role to develop the area.
13. Establishment of Mango/Litchi Processing Industry

Rajshahi is known as the source of juicy mangoes in Bangladesh. During the season huge amount of quality mango is produced in the region. This local resource can be a good option to play a vital role in the local economy. Industries like mango manufacturing (to produce Juice) can be established in Rajshahi which may play a vital role in the employment sector as well as in the economy. Private initiative can be encouraged in this regard.

14. Incentive for Silk Industries

Rajshahi is famous for its silk for a very long time. This particular commodity also plays a vital role in the local economy as well. But over the last decade due to import of artificial silk from India the local original sericulture silk is near destruction. This is already a negative impact in the sector. As a result, the investors are not interested to make more investment in the sector for original sericulture silk. Government should take initiative to revitalise the sector.

15. Establishment of Fish Processing & Sweetmeat Factory

Rajshahi is well known for sweet water fish, which are available in the surroundings beels and in the river Padma. After meeting up the local demand it is possible to supply to the other parts of the country if initiatives is taken. Some fish processing industries can be established in some locations which can meet up the demand of fresh fish as well as can generate some scope of employment. However, the present production of sweetmeat can be encouraged through some incentives by the government for the businessmen involved in this sector.
6.2 Conclusion

The city of Rajshahi is not that much crowded and haphazard as Dhaka and Chittagong. The 1984 Master Plan of the city has been implemented to some extent. However a number of proposals were not implemented due to some constraints like slow pace of economic development of the city, lack in plan preparation, political influence and improper planning practices, etc. The Rajshahi Development Authority is presently preparing a new Master Plan for the next 20 years. Proper initiatives should be taken to implement the upcoming proposals in the new Master Plan. However, a number of initiatives should be taken as suggested in the previous paragraph, programmes taken up by the government as well as the private investors to boost up the economy in the region is vital. The progressive sectors like silk, mango, litchi etc. can be important factor to increase up the local economy. The beautiful riverbank can be improved in such a way to develop as tourist spot, picnic spot, scenic river cruise, boat restaurant, holiday house. Hence, there should be an all out effort by the government, agencies involved and the private investors to build a prosperous Rajshahi in a planned way in the future.
Photograph # 01: Sopura Silk Factory in Rajshahi Industrial Estate

Photograph # 02: Sopura Silk Show Room at Rajshahi Industrial Estate
Photograph # 03: Padma River Bank at Rajshahi; Can be Developed as a recreational Spot. Immense potential for Riverfront Development

Photograph # 04: Barendra Research Museum (Estd. 1910). Rajshahi
Photograph # 05 : Water Supply Network (Locally Called Dhopkall) Installed by Rani Bhabani in 1900 is Still in Use as Source of Water Supply

Photograph # 06 : A View of Rajshahi Railway Station
LAUD USE PLAN FOR JESSORE TOWN EXTENSION PROJECT

REFERENCES
1. RESIDENTIAL PLOTS
2. NUCLEUS HOUSES
3. OPEN SPACE PARK & PLAY GROUND
4. HEALTH CENTER
5. HIGH SCHOOL & PRIMARY SCHOOL
6. CINEMA & COMMUNITY CENTER
7. SHOPPING SUB-CENTER
8. COTTAGE INDUSTRIES
9. CENTRAL SHOPPING
10. LAKE
11. RELIGIOUS BLOGS
12. EXISTING ROADS
13. PROPOSED ROADS
14. RIVER
15. EXISTING BUILDINGS
16. ACQUISITION LINE

PROPOSED LAND-USE PLAN OF TOWN EXTENSION SCHEME PUBLIC & D.P.S. HOUSING AT JESSORE.

DATE: 31.8.62

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SUPERINTENDING ENGINEER WORKS

SITELINE OF SITE AT JESSORE SHOWN

KEY PLAN
SCALE 1:1 MILE

DRAWN BY: S. K. ALAM
TRACED BY: S. M. HASAN
CHECKED BY: S. M. HASAN
DEP. NO. HS/PF-12

PROJECT ENGINEER'S OFFICE, GOVT. OF EAST PAKISTAN
LAY-OUT PLAN OF LALMATIA HOUSING ESTATE, DHAKA
MASTER PLAN FOR PATUAKHALI DIVISION HEAD QUARTER
LAND-USE PROPOSAL FOR FUTURE DEVELOPMENT
COMILLA TOWN

LEGEN:--
1. P. Zone...
2. Residential Area...
3. Private Offices...
4. Educational Institute...
5. Industries...
6. Green Belt (Pl. 20 acres)
7. Parks & Play Grounds...
8. Gravel Commercial Area...
9. Agricultural Area...
10. Marshland...
11. Provisional Road...
12. Railway...
13. Town...
14. Canoe & River...
15. Ferris wheel...
APPENDIX- C
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