

Application of Building Construction Rules on Residential Building

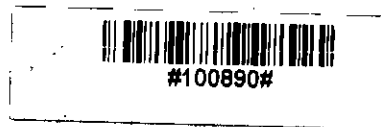
-a case study



by

Dewan Golam Kibria

Thesis submitted to the Department of Urban and Regional Planning
In partial fulfillment of the requirements for the degree of
MASTER OF URBAN AND REGIONAL PLANNING



DEPARTMENT OF URBAN AND REGIONAL PLANNING
BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

2005

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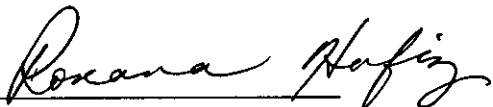

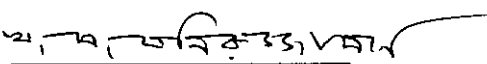

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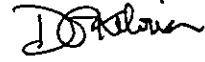
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It is hereby declared that this thesis or any part of it has not been submitted elsewhere for the award of any degree or diploma.



Dewan Golam Kibria

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ABBREVIATIONS AND ACRONYMS

Abbreviation	Elaboration/Meaning
RDA	Rajshahi Development Authority
KDA	Khulna Development Authority
CDA	Chittagong Development Authority
RAJUK	Rajdhani Unnayan Kartipakhkha
RCC	Rajshahi City Corporation
R/A	Residential Area
BC	Building Construction
Govt.	Government
SMA	Statistical Metropolitan Area
GDP	Gross Domestic Product
BBS	Bangladesh Bureau of Statistics
CBD	Central Business District
RTDA	Rajshahi Town Development Authority
UDD	Urban Development Directorate
UNDP	United Nations Development Programme
SMA	Statistical Metropolitan Area
EBBC	East Bengal Building Construction

Acronyms	Definition
Katcha	Temporary structure, which is removable, any time.
Semi-pucca	Four side of the house is brick wall but roof. Only roof is made of tin.
Pucca	Permanent structure that is made of only brick and RCC.
Mahalla	It is a locality or a neighbourhood.

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ABSTRACT

This study is about the application of building construction rules on residential building in Rajshahi City. There are some govt. rules and regulations to build a permanent construction. The Building Construction Rules is one of the most important things in the field of planning and development. It is intended to ensure soundness and stability of structures and the health and welfare for the occupants. It has important role in Planned Development and Beautification activities of the locality. For this reason in the long title and preamble of the rules it is said "A rules to provide for the prevention of haphazard construction of building....." This haphazard construction in no way expected for the state, society or person. These rules should be known as well as followed by every builder and construction institute or firm.

In this study Rajshahi has been considered as study area, because it's Master Plan has been finished recently. So, there is a scope of having updated information about this city. Besides, as an institutional city it is one of the important cities of our country. This is the time to adorn this city in a planned way. Generally people want to build their houses according to their need as well as their modified design. Most of the owners build their houses violating the BC Rule. Due to violation of rules's people encounter so many problems in the city.

This study has emphasized on various problems faced by people as well as controlling authority in case of residential building construction. It has examined the general problems that relates to common interest of the general public or the inhabitants of the city as well as specific problems faced by development authority in controlling city development.

Among the different localities in Rajshahi City four localities have been selected considering economic condition, planned and unplanned nature of the areas. and sample size was considered depending on the population size (number of residential building).

Questionnaire survey among the among the residential building owners, keyinformant discussion and intensive field observations were the prime tools of data collection. Among numerous components under building construction rules this study has focused

on residential building only considering the ease of data collection, availability of information and limitation of time.

Usually BC Rules violation is a common practice in Rajshahi City as well as in the country. Building owners of the planned residential areas in Rajshahi are conscious about BC Rules than other areas. Comparatively violation rate is lower in planned areas than unplanned areas.

Various reasons of violation of BC rules are identified in the study area. Among the reasons; lack of institutional strength, negligence, of duties and responsibilities of the concerned authorities, immorality, ignorance of rules, confusion on area of jurisdiction of Rajshahi Development Authorities, administrative slackness, location, are notable. More than half of the respondents of the study area have claimed that they are facing different problems due to violation of BC rules. Maximum people reported about environmental problem like, less air circulation, less sunlight etc. Some people stated that due to BC rules violation pressure is increasing on the utility and services. Social conflicts have been increased among the adjacent neighbours. Some people claimed that unplanned and haphazard growth is deteriorating aesthetic view of the city.

It is expected that this research would be an important document to shed light towards the state of BC rules violation, reasons behind violation and its consequences. It would help to alert the concern authorities as well as residential building owners to follow BC rules and thus to ensure a planned and healthy living in residential areas.

CHAPTER ONE

INTRODUCTION



1.1 Background of the Study

Building construction is one of the important issues in town planning. Proper guidance in this regard ensures to build a town/city in planned way. There are a number of Building Construction (BC) laws in Bangladesh to guide building construction in a guided way. Many of the builders even after taking the approval of concerned authority do not follow the guidelines properly. But the problem is that in urban areas most of the buildings are constructed without following building construction rules or even without permission of the concerned authority. All these have created problems, which ultimately result to a haphazard development.

A bye-law is a local law framed by a subordinate authority. The building codes or bye-laws are defined as the standards and specifications designed to minimum safeguard to the workers during construction; to the health and comfort of users; and to provide enough safety to the public in general. (Rangwala, 1996)

Today residential environment is a critical urban issue of any city. To keep a healthy and sound living environment within residential area proper application of BC Rules is a prime requirement. The present scope of the study is only for the people who take permission for permanent (Pucca) residential buildings. In most of the cases people are violating BC rules and affecting city services and facilities, health and hygiene, convenience, comfort and on overall living environment of city.

The current study is a review highlighting the important legal issues in acts and ordinances relevant to planning and development of Rajshahi City. The aim of the review is two fold- (1) to highlight the special features of the act and compare them with similar other acts prevailing in the country; (2) to expose the major limitations and point out necessary areas of revisions to make them effective facilitators in future city development. This study highlights the issues and problems and points out areas of revision/amendments only. Details of recommendations has been incorporated in the plan report.

In Bangladesh generally building construction is regulated according to The East Bengal Building Construction Act, 1952 (*section, 18*). All of the local authorities or organizations prepare the building construction specification according to the requirement of the specific areas.

Rajshahi is the fourth metropolitan city of Bangladesh. The present population of Rajshahi City Corporation (RCC) area is about 4 Lakh with an area of 48.06 Sq. Km. At national level, northern region of Bangladesh is recognized as an economically backward region. For example, per capita income of Rajshahi Division is 18% less than the national average. This is very low compare to the income of other cities of Bangladesh. Residential area is the major dominating land use of RCC area and it is occupying about 33.47% of total land. There are about 88834 structures of different use in RCC area of which 88% (78143) are residential structure. Within all residential Structure 25292 unit (32%) are Pucca and rest are Semi-pucca (42946 unit) and Kutchha (9905 unit). (DDC, 2003)

Rajshahi is the fourth largest city in the country. With the process of urbanization, the demands for shelter have gradually been increased. It is compulsory to take the approval of the Rajshahi Development Authority before any type of permanent and semi-permanent construction in the city. Though the rule was inaugurated since 1964, only 20 thousand buildings have been constructed with the approval of RDA. During the same period at least 50 thousand buildings (both large and small) have been constructed without proper approval from RDA in its jurisdiction.

With an objective to meet the need and to provide better housing provisions, Rajshahi Development Authority took initiatives to establish housing facilities in different parts of the city. For creating a healthy living environment of the city, Directorate of Housing and Settlement created a planned housing estate with 744 serviced plots at Upashahar, named Upashahar Housing Estate in 1958, and RDA created some planned residential areas with 565 serviced plots at Padma Housing in 1978, Chondrima Housing, Parijat Residential Area and Seroil Colony etc. The present paper aims to identify the extent of violation of building construction rule, types or nature of violation of rules and the cause's behind the violation. This investigation would be made only in the case of residential buildings.

1.2 Objective of the Study

The objectives of the present study are stated bellow,

- To study the present state of application of BC rules in RCC area.
- To identify the reasons for violation of BC rules.
- To examine the associated problems due to violation of BC.
- To propose recommendations for effective application of Building Construction rules.

1.3 Rationale of the Study

Due to rapid urbanization and higher population growth rate, the cities have been developing in unplanned way. The different income level people from different profession live in the city in different residential areas as owner or as a tenant. They build their houses on their land within the city to address their needs for shelter. Through this process the residential areas have been gradually increasing in the cities and towns. In our country a common practice is found that people does not want to follow the Building Construction (BC) Rules. There are some personal interests of the owners and also some dishonest Authorized persons are engaged with this kind of violation. So, through this study one can easily see the reason behind violation of BC Rules as well as constraint to apply BC Rules.

Though there is Building Construction Rules by the concerned authority but people are not strictly applying. No separate study has been conducted on the issue of planning for building construction rules of Bangladesh and as such it is imperative that there is an urgent need to conduct a study to control unplanned and unauthorized building construction.

1.4 Scope and Limitations of the Study

Scope and limitations of the study are as follows-

1.4.1 Scope of the Study

The scope of this study is confined to Application of Building Construction Rules on residential building for Residential Area Development in both Public and Private Sector Ordinance. The main attention has been given to the application of Setback Rules Building By-laws and Building Construction Rules. Considered rules for the study are following.

Rule No. 1- No proposed construction should be within 20 feet from the centre of the road, lane or passage where the width of the road or land is less than 40 feet. (Rahman, 1989)

Rule No. 2- The covered area of a plot must not exceed two thirds of the area of the plot

Rule No. 3- Every proposed building must have 10 feet back space and 4 feet side space exclusive of the sweeper passage, if any. For plots of the irregular back boundary line, Authorized Officer may accept 10 feet back space in average.

a) The manner in which the roof house drainage as well as the surface drainage have been disposed of should be shown in the plan

Rule No. 4 (a) – Construction of garage and ancillary structures may be allowed within the 10 feet back space and 4 feet side space provided that-

- i) The height of the construction [of garage and ancillary structures] does not exceed 8 feet measured from the road level to the highest point of the structure, and that the covered area of the main building does not exceed the limit provided in rule 2 above.
- ii) No opening is provided to overlooking the adjoining plots
- iii) no access to the garage is provided direct from the road, no such garage should be built within 6 feet of the edge of the road

- b) Garage not exceeding 8 feet in height and no opening whatsoever towards the road may be built up to the roadside boundary of plots in Residential Area where the width of the road is 40 feet or more

Rule No. 5 (a) – Construction of rooms over such garages may be allowed provided that-

- i) clear 10 feet set-back from the back boundary and 4 feet set back from the side boundary are maintained
- ii) no access is provided to the terrace thus left on the roof of the garage and same is not in a manner prejudicial to the interest of the owners of the adjoining plots at the back and side except as provided in the sub-rule below;
- iii) where any such access to the terrace is provided a screen wall not less than 6 feet in height is raised along the terrace leaving at least 4 feet side space and 10 feet back space from the such screen walls
- iv) there is no verandah, balcony, door or such other feature over looking the adjoining owners' plots; ventilators are permitted;
- v) the stair to the rooms over the garage is not placed in a manner prejudicial to the interest of the adjoining houses.

(b) Garage and rooms built over them inn plots abutting on private roads, lanes shall not be allowed within 20 feet from the center of the road or lane and where there is an alignment or possibility of the road or lane being widened there shall be a further set-back sufficient to keep the proposed construction clear of the proposed alignment for widening the road.

(c) If the entrance too the garage is provided directly from such road or lane there shall be a further set-back of 6 feet from the proposed alignment for widening the road or lane.

Rule No. 6 (a) - For Government allotted plots the boundary wall or fencing wall be declared as common property and common usage of adjacent owners when erected on common boundary line with due consent of the both parties, whether they contribute the cost mutually or singly and in such cases the common boundary walls should have sufficient foundation to enable raising of the wall to a minimum height of 6 feet by either party, if desired.

(b) No one shall build or allow to be built a compound wall encroaching under or over the adjoining owners' land unless both the parties mutually agree in writing and satisfy rule 6 (a) above.

This study has focused on an evaluation of BC Rules and performance of RDA in the enforcement of the same. This study did not consider the other rules of town planning. Basically it is a pilot exercise of implementation of micro level law of town planning for specific purpose. Further, this study has reviewed Master Plan and ordinances of the authorities that are mostly concerned with the study area.

1.4.2 Limitations of the Study

This study did not consider commercial, industrial, public, office, large or small factory but residential building. Moreover, this study did not consider all residential buildings of Bangladesh even of Rajshahi City. Only selected four localities were considered to conduct survey work. More than ten percent of samples were collected randomly from the total residential buildings of the selected localities. At the time of conducting survey numerous problems occurred. Some respondents of the study areas were not co-operative to deliver all the necessary information. Shortage of time did not allow conducting intensive survey. Due to secrecy of the concerned development authority it was difficult to bring required information. This study has mainly confined only on application of building construction rules and the ranges of evaluation by the RDA acts and ordinances. Among numerous BC rules here only major and important rules have been discussed.

1.5 Thesis Organization

The Introductory Chapter includes background of the study, objectives, scope and limitations. Chapter two describes literature review of the study. Chapter three comprises the survey part like, reason behind selection of study area, sample design, survey design, secondary data collection and data analysis. Profile of the study area is included in the Chapter four. Chapter five is consisted of present condition of the application of Building Construction Rules in the Rajshahi City. Chapter six is the

analytical part of this study, which is named as Reasons of violation of BC Rules and its consequences. Institutional problems associated with BC Rules in Rajshahi City are in the chapter seven. Summary is in the chapter eight. Besides, this policy, conclusion and some recommendations are given to stop this kind of violation. Here some policy guidelines are also given to control unauthorized building construction.

CHAPTER TWO

LITERATURE REVIEW

2.1 General

This chapter is a review highlighting important legal issues, acts and ordinances relevant to planning and development. The aim of review is two fold- first, to highlight the special features of the act and compare them with similar other acts prevailing in the country; second, to expose the major limitations and point out necessary areas of revisions to make them effective facilitators in future city development. This chapter highlights the issues and problems and points out areas of revision/amendments only.

2.2 East Bengal Building Construction Act, 1952

This Act was promulgated in order to control haphazard and unplanned development of buildings, excavation of tank and cutting of hills. The prime objectives of the Act are to control building construction.

Following is a brief review of the selected aspects of the Act. (Syed, 1989)

2.2.1 Amendment of Building Construction Rules (Section 18)

a. Rule 10 (3)

Change of Residential cum Commercial Use into Mixed Use

All residential cum commercial areas can be changed into mixed use by incorporating small scale workshop and processing activities together with residential and commercial uses. Amendment should include a list specifying mixed activities. The list of mixed-use establishments provided in Urban Area Plan of Dhaka City Master Plan, 1995 can be made use of.

Justification

It will ease approval of necessary non-residential use structures within areas dominantly used for residential purpose. This will help generate new economic activities and employment in addition easing life of the residents by supplying essential services close to their hands.

b. Allowance for Ancillary Facilities in Residential Areas

In Master Plan earmarked residential zones permission should be given for ancillary facilities, like, day to day shopping and service in selected locations. A new rule can be worked out giving permission to first corner plots at every intersection to set up ancillary use activity together with residential use or separately. The applicant of the proposed building can be charged additional fees for approval of a plan of this kind.

Justification

In a residential zone earmarked in the local Master Plan the concerned authority approves only residential building plans. But practically, a residential community needs a host of ancillary services and facilities in their everyday life. In almost all residential areas, particularly, in spontaneous areas, these facilities develop out of demand. And all these facilities develop in unauthorized manner. This new addition to rules will produce following benefits,

- *create facilities to meet everyday need of the local community,*
- *create avenues for new investment and employment,*
- *generate additional income for plan approving authority.*

2.2.2 Use of Proposed Building in Absence of Master Plan / Land Use Plan

Section 3A of the Act directs that use of the existing building must be consistent with the land use zone of that area proposed by the local Master Plan. But the Act does not say what action will follow if no Master Plan and land use zoning provision under the plan exist for that area.

In fact the act should have incorporated provision imposing a binding on the local development authority / municipality or any other appropriate authority to prepare a

land use plan to fix up use zones of the area concerned. And also that a person applying for building permission should obtain a land use clearance first, as it is done under *Rule 18* of EBBC Act, 1952.

2.2.3 Unlimited Power of the Authorized Officer and Use of Section 17(1), (2)

Section 14 and Section 17(1), (2) of the Act gives unlimited power to the executors of the Act when it says, 'Every order under *Section 3* or *Section 5* or *Section 6* or *Section 9* shall, subject to the provision of *Section 15*, be final and shall not be called in question in any civil court.'

2.3 Review of Rajshahi Town Development Authority Ordinance, 1976

Rajshahi town development authority ordinance, 1976 (*ordinance no. lxxviii of 1976*) was enacted on October 22, 1976 to establish an authority for planning and development of Rajshahi town and certain areas in its vicinity. Based on the provisions of the ordinance Rajshahi Development Authority (RDA) was established to attain the objectives of the ordinance using the tools of planning, development and development control. RDA is one of the four urban planning and development authorities established for four divisional headquarter towns out of six. The authorities of Dhaka, Chittagong and Khulna were established during 50s and early 60s based on almost similar but separate acts enacted for each of them. RDA is the only post liberation town development authority; hence its constitution, functions, responsibilities and powers deviate from the other three organizations.

2.3.1 Selected Aspects of Rajshahi Town Development Authority Ordinance, 1976

Following is a brief review of the selected aspects of RTDA Ordinance indicating their limitations, flaws and speciality with respect to similar other laws.

2.3.1.1 Importance of Planning

RDA is basically a planning and development authority. Planning is one of its most important components. Planning has been given due importance by the act at the outset in its first line. No other act of any development authority highlights planning

in this manner. In *Section 10, 11 and 12* the act describes the details of three tier planning process for Rajshahi City, which is also a unique addition to the act. No other urban planning and development act of the country contains so details about plans in legal form. This kind of detailing, however, has both, merits and demerits. The merit is that legal bindings can keep the planners/consultant to work within a particular planning framework. The demerit is that planning is a dynamic concept, which changes overtime. Adoption of new changes in the planning approach would be difficult and time consuming as it would require approval of the parliament.

2.3.2 Powers of Rajshahi Development Authority on other Agencies to Follow/Prepare Plans
Section 10 (5) of the Ordinance confers powers on RDA to compel any other authority or agency within the jurisdiction of RDA to prepare their future development schemes in conformity with the general development plan prepared by RDA.

Section 11(2) and (3) empowers RDA to compel any other local authority, government agency, or institution to prepare functional master plans for their respective services / facilities.

2.3.3 Development Control Powers

RTDA Ordinance, 1976, gives RDA the powers of development control within its jurisdiction. This is in addition to the powers conferred to RTDA by the East Bengal Building Construction (EBBC) Act, 1952. Particular features of the development control powers under RTDA Ordinance are reviewed below in short.

- a. Section 25 of the Ordinance empowers RDA to evict an unauthorized occupier (who is not an owner) of a building.
- b. Section 28 of the Ordinance clearly forbids paurashava (City Corporation/ Municipality) within RDA control area from approving any building plan.
- c. Section 29 of the Ordinance introduces for the first time, the provision of restriction on filling up of low lands/drainage channels without prior permission of the authority. The government in the year 2000 (Act 36 of 2000) had enacted a new but similar act for nationwide application by the government. RDA Ordinance was advance in this respect. However, it is unknown how far these powers were exercised by RDA.

d. Though RDA enjoys powers of development control but the relevant provisions of the act do not seem to be complete one. It lacks in detailed rules that form the basis of building plan / low land filling / tank excavation approval. Such rules are incorporated in Section 18 of the EBBC Act. Without these powers RDA can not effectively apply its development control powers conferred by the RTDA Ordinance.

2.3.4 Resolution of Conflict between Rajshahi Development Authority and City Corporation

Conflict between RDA and City Corporation often arises on the quality of infrastructure to be handed over to City Corporation after development by RDA. *Section 37 (3), (4), (5), (6)* keeps detailed provisions to mitigate these and other conflicts with the mediation of the Divisional Commissioner.

2.3.5 Penalty for Obstructing Contract or Removing Mark

This is an unique example of legal provision (contained in *Section 50* of the Ordinance) regarding execution of an approved contract or plan. The Ordinance keeps provision of penalty for obstruction on any contract between RDA and any other person for the purpose of the Ordinance. It also keeps provision of penalty for any one who removes any mark set up indicating any level or direction necessary to the execution of work Authorized by the Ordinance or any rule made or development scheme approved there under. This provision would help maintain the markings of any street layout proposed in a plan (like, Detailed Area Plan or development scheme).

2.3.6 Preparation of Record of Existing Services, Facilities and Public Properties

Section 9 of the Ordinance offers, for the first time, a unique opportunity to create urban database for Rajshahi, which is highly lacking in government agencies. Effective application of this provision can help create automated database for all kinds of services, facilities including maps and public properties that can be used for research, planning and drawing development schemes by all those who need them.

2.3.7 Detailing of Powers and Responsibilities of Key Officials

Section 32 and 33 of the Ordinance provides details of powers and responsibilities of the Chief Executive Officer and the Chief Accounts Officer of the Authority. These

two positions are only supporting staff of the Authority whose responsibilities are to help function the organization smoothly by assisting planning and development functions. However, the Authority is basically a planning and development organization. Planning and development are the key functions of the Authority. But the Ordinance fails to mention anything about the designation and responsibilities of the planning and engineering chiefs of the Authority. This is highly inconsistent with the purpose of the act and reflects biasness.

2.3.8 Absence of Provisions Planning Permission

A developer requires land use permission from the Town Planning Department of RDA before submitting plan for approval. Giving land use permission is an important planning function. But the aspect of land use permission is missing in the act. Without appropriate rules and guidelines regarding planning the concerned officials face extreme difficulty in decision making.

2.4 Review of Rajshahi Master Plan, 1984

After establishment of RDA, for the first time in 1984, an effort was taken to prepare a Master Plan for Rajshahi City. 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 was similar to the Master Plans prepared in the 1950s and 1960s for other major cities of the country. It is also worth to say that the Rajshahi Town Development Ordinance of 1976 did not used the term "Master Plan". Instead it used three different nomenclatures to the city plan for Rajshahi- General Development Plan, Functional Master Plan and Development Scheme to describe the three tiers of city plans.

The plan was to cater for a population of 100,000 during Third Five-Year Plan and for additional population of 300,000 inhabitants for the period 1985-2000.

2.4.1 The Planning Outline

The plan of 1984 was devised in outline form highlighting only the key proposals. The concern of the plan was physical planning and infrastructure development. The plan broadly made proposals in six areas. It also prepared a land use map to enable processing and approval of development permissions within the RDA area.

Following is a sector wise description of the plan proposals.

- In the Town Centre proposal the plan recommended to locate a new town centre on the north of the railway line by the Naohata Road where new commercial and administrative establishments can be set up and linked with main city by access roads.
- In the Drainage, Sewerage, Water and Electricity field the plan recommended working out a special drainage plan for the city using Baranai River. Septic tank was suggested for multistoried buildings and comprehensive sewerage system at a later stage. It also laid importance for new waste disposal site.
- In the Employment sector the plan proposed five new light industrial sites on the north of the railway line including extension of area of BSCIC Industrial Estate which was running short of land in its existing site.
- The aim of the proposed Road Network system was to create good accessibility on the north of the railway line where future urbanization was going to take place. It proposed to replace existing Natore and Nawabganj Road by new roads. These were to be linked with Greater Road and Naohata Road. The plan suggested avoiding direct access to new developments along the new roads. New roads were proposed to have a ROW of 100 ft. and Greater Road to be extended to 80 ft.
- In the Housing sector the plan recommended a gross density of 200 persons/ha (85 persons/acre) which means average 30 dwellings /ha (13 dwellings/acre). The plan suggested forming housing units around a primary school with 550 dwellings accommodating 3500 inhabitants of which 400 will be primary school going children. It was suggested to develop two or three housing units together so that common facilities, like, secondary school, recreational space, mosque, market with parking area, shops and other services could be used combined.

- For Recreation-Open Space the plan recommended to safeguard the riverbank and protect it from scattered development. To enhance beauty of the embankment area tree plantation and other arrangements were suggested. More playgrounds for children were recommended. A major recreational zone was proposed in the new town area to the northeast where lake was recommended combining low lands with drainage collection; a zoo could also be created. Recreational lanes network within green / open spaces were recommended for traffic access to markets, employment areas and city centers.

2.4.2 Duration of the Master Plan

The plan does 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.

2.4.3 Population Forecast

The plan made a forecast of urban area (RCC) population as 4 lakh 5 thousand for the year 2000, which was estimated to be 2 lakh 20 thousand in 1985. However, the national population census 2001, in its preliminary report, registered Rajshahi City Corporation population as 3 lakh 83 thousand only. It reveals that the actual population growth failed to reach the forecast population in a period of 16 years.

2.4.4 Legal Validity of the Master Plan, 1984

Regarding legal validation or official approval of the city plans the RTDA Ordinance, 1976, in its Section 15, makes the provision that out of three categories of plans/scheme the General Development Plan and the Functional Master Plan shall have to be notified in the official Gazette, and such notification shall be 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. This raises the very question regarding the legal validity of the 1984 Master Plan.

2.4.5 Plan Type and Rajshahi Town Development Authority Ordinance, 1976

The city plan prepared for Rajshahi in 1984 was titled, 'Master Plan' and it was a single plan. But the RTDA Ordinance 1976 makes provision that the city plan for Rajshahi 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, which is a violation of the Ordinance.

2.4.6 A Brief Review of Master Plan Implementation and its Impact

The plan proposed a new Town Centre at Purba Natunpara area, in Ward No-18 of RCC. The idea was to create new activities towards north to accommodate future commercial establishments and other CBD functions. During 1995 RDA took an initiative to develop a commercial centre beyond the railway line called Banalata on an area of about 18.80 acres. Some more commercial projects as per direction of the erstwhile master Plan is in process. But commercial projects did not have much impact on local economy. The reason was, probably, the slow urbanization and excess capacity of the existing CBD area to accommodate more activities.

The situation of drainage hardly shows any improvement after 16 years of plan formulation. In 1994 RCC prepared a Drainage Master Plan for the area between Railway line and Town protection Embankment and many schemes under the plan has been executed.

Commercial activities in the old areas did not expand to the expected level and new town centre was not established. The number of industries in the BSCIC Industrial Estate did not grow adequately. So necessity was not felt for new industrial estate development as proposed by the Master Plan. Population census of 1991 reveals that over half (53.12%) of the income earners in the city belonged to unclassified activities, most of which were informal activities. It clearly indicates that non-farm employment under formal sector did expand much in the city.

Total residential lands recommend were 7500 acres including existing 2750 acres, which formed about 64 percent of the total non-agricultural land uses. The plan suggested maintaining a particular household/dwelling density standard in residential areas. The plan did not clear out whether housing to be developed spontaneously or the public authority should acquire entire housing land and develop planned housing estates. According to RDA sources, so far they could develop only 3 housing estates totaling about 78.35 acres and created and delivered 536 housing plots. Due to slow growth of city population new housing areas did not develop to the extent it was expected. Scope for in filling and lack of infrastructure is other major reasons for slow growth of new areas.

The aim of the proposed Road Network system was to create good accessibility on the north of the railway line where future urbanization was going to take place. It proposed to replace existing Natore-Nawabganj Road by new roads. These were to be linked with Greater Road and Noahata Road. The plan suggested avoiding direct access to new developments along the new roads. New roads were proposed to have a ROW of 100 ft. and Greater Road to be extended to 80 ft.

So far, RDA has implemented only about 26 kms of road network out of about 88.55 kms (55 miles) proposed by the Master Plan. This includes, Bypass Connector Road (3.41 km), Talaimari Rail Station Road (3.25 km), Kalpana Cinema-Sericulture Sells Centre Road (1.50 km), Bypass-Airport Connector Road (2.00 km). Besides, 22 km Rajshahi Bypass Road is under construction. Lack of financial resources is the prime cause for non-implementation of many master plan roads. However, due to slow rate of urbanization, need for new roads were not acutely felt (DDC, 2003).

The plan recommended 1000 acres of new recreational open space. Added with existing 250 acres, the total recreational land stood at 1250 acres. So far RDA has developed only 11 acres of park with lake near Padma Housing Estate. No play field or green space has been developed as per recommendation of the plan. The primary reason for non-implementation of open space proposals is the lack of awareness about the issue. Absence of open space has indirect and long ranging impact on the citizen, particularly, the children and the youth. It is difficult to secure large vacant space and

non-availability of sufficient resource is always a major handicap in implementation of such projects, which get least priority in respect of resource allocation by the government (DDC, 2003).

The plan, its land use table, at the end of the report recommended additional land for such uses as, Commercial, Administrative, Educational, Health, and Graveyard. But in its report the plan did not mention anything about these proposals.

2.4.7 Land Use Zoning and Development Control

Apart from development proposals the 1984 Master Plan prepared a land use zoning plan. But the plan was not prepared with a mouza map background. As a result the plan could not be used as a development control instrument. It was also found difficult to use the plan in drawing up specific development projects with land acquisition maps.

2.5 Literature Related to Similar Studies

Some literatures which are relevant to this study are included here for realizing the over all actual situation of Building Construction Rules in our country.

2.5.1 Dhaka City Master Plan: Implementation Situation and the Relevant Factors

It has been made compulsory as per Building Construction Law 1952 to take approval of the concerned authority while constructing any kind of permanent/temporary structure house or in bringing any change in the existing building situated in the Master Plan area. The authority to apply the law in Dhaka is the Authorized Officers of the RAJUK appointed by the government. There are only two authorized officers engaged in Building Construction Control in the area of 590 sq. mile of the Master Plan that is not sufficient at all. The competition of constructing whimsical and unapproved building in the capital city is clearly observed. In the Building Construction Law of 1952, no power was delegated to the Authorized Officers to take step for construction building without approval or to resist construction of building

out side of approval or for their removal. In this case he was given the power only to suit a case against the criminal in the criminal court. It took long time to settle case in the criminal court. Besides this, defendant can appeal to the high court against the verdict of the lower court. Due to these reasons it was not possible to the authorized officers to take any practical step to resist unapproved construction work or construction work outside approval and he did not have anything to do in this regard. (Hafiz, 2000)

In the 1986 the Law was amended and the Authorized Officer has been given the legal authority to resist and remove the unapproved construction work without any step of the court. Other than this, during the amendment, getting approval of any government, nongovernmental and private construction work has been made compulsory before the beginning the work. (Hafiz, 2000)

But the reality is different. Side by side of the Building Construction Law of 1952 increase of population in the capital, tendency of construction of unapproved building, and the buildings outside the approval has increased, crossing the normally. Educated, uneducated capable incapable everybody seems to have been turned disrespectful towards law. Everyday huge numbers of allegations are being submitted to RAJUK. It is also alleged that RAJUK is not taking any step against the corrupt officials and in solving the building construction related problems. The fact is that, after receiving allegations soon RAJUK serves notice to the concerned building constructor owner according to law. The citizens respectful to law try to correct their mistake after they receive notice. But in most of the cases it is seen that after receiving the notice the owners of the building finish their construction work more rapidly. Any many cases file writ petition to the high court against the notice and stays the order of the Authorized Officer. This is also true for some government organizations. Like the nongovernmental and private organizations and persons many government organizations care a little about taking prior approval of RAJUK in constructing their building. Despite the presence of clear legal obligation many government organization are constructing building at the RAJUK Area without its prior approval. (Hafiz, 2000)

2.5.2 Vizag City Municipal Corporation Building Bye-Laws, 1981,

This city is located at Andhrapradesh in India. Application for building permit - The following shall accompany the application for building permit in the case of permission for erection, re-erection or making material alteration.

(I) Key-plan: A key -plan drawn to a scale of not less than 1:10,000 shall be submitted along with the application for a building permit, showing the boundary of the site w.r.t neighborhood landmarks.

(II) Site-Plan: Plan sent with an application shall be drawn to a scale of not less than 1:500 for areas up to 1 Ha and not less than 1:100 for areas more than 1 Ha and shall show-

- The boundary of the site of any contiguous land belonging to the owner thereof;
- The position of site in relation to neighboring street;
- The name of the street in which the building is proposed to be situated, if any;
- All existing building standing on, over or under the site;
- The position of the building or of all other buildings (if any) which the applicant intends to erect upon his contiguous land referred to in (a) in relation to;
- The boundaries of the site and in case where the site has been partitioned the boundaries of the portion owned by the applicant and also, of the portion owned by others;
- All adjacent streets, buildings (with number of storey and premises within a distance of 15m of the site of the contiguous land (if any) referred to in (a); and
- Position of any public or private water supply with which water is intended to be withdrawn.
- The means of access from the street to the buildings and to all other buildings, and to all other buildings, which the owner intends to erect upon his contiguous land referred to in (a);
- Space to be left in land around the building to secure a free circulation of air, admission of light and access for scavenging purposes and detailed projection (if any) on to the open spaces;

- The width of the street (if any) in front and of any street (if any) at the side or rear of the proposed building;
- The direction of North Point relative to plan of building;
- Any existing physical features, such as wells, drains, trees etc;
- Aerial, electric lines, and sewerage and drainage line up to discharge point and water supply lines;
- Aerial electric supply line, water supply and drainage line; and
- The Authority may prescribe such other particulars as.

(III) Building Plan: The plan of the buildings and elevations and sections accompanying the application shall be drawn to a scale not less than 1:100. The plan shall:

(IV) Service Plan: Plans, elevations and sections of private water supply and sewage disposal system independent of municipal services, if any, shall also be included.

Further the Service Plan shall indicate the Following:

- (a) The intended line/lines of the drainage of the building for the discharge of the rain water and sewage separately (each in separate distinguishing color)
 - (b) The intended size, depth and inclination of each drain;
 - (c) The position of any sewer/drain with which the drainage is intended to be connected;
 - (d) The position and section of private water supply line (in a separate distinguishing color);
 - (e) The details of the arrangement proposed for the ventilation of the drain.
- (V) Ownership Title: Every application for building permit shall be accompanied by the following as proof of Ownership;
- (a) Attested copy of the original sale/lease deed; and

(V) Ownership Title: Every application for building permit shall be accompanied by the following as proof of Ownership;

(a) Attested copy of the original sale/lease deed; and

Table-2.1: Sizes of drawing sheets to submit for the approval of concerned authority.

Sl No.	Designation	Trimmed Size	Untrimmed Size, Min
(1)	(2)	(3) mm	(4) mm
i)	A0	841 x 1189	880 x 1230
ii)	A1	594 x 841	625 x 880
iii)	A2	420 x 594	450 x 625
iv)	A3	297 x 420	330 x 450
v)	A4	210 x 297	240 x 330
vi)	A5	148 x 210	165 x 240

Source: URL:<http://www.vizagcity.com>

Note: In arriving at the trimmed sizes of drawing paper, the following basic principles, which have been dealt with in **IS: 1064-1961***, have been taken into consideration:

a) Two successive sizes of the series are obtained by halving or doubling.

Consequently, the surface areas of two successive sizes are in the ratio of 1:2.

b) The formats or forms are geometrically similar to one another, the sides of each size being in the ratio of $1:\sqrt{2}$.

c) The surface area of the basic size A0 is one square meter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Type of Research

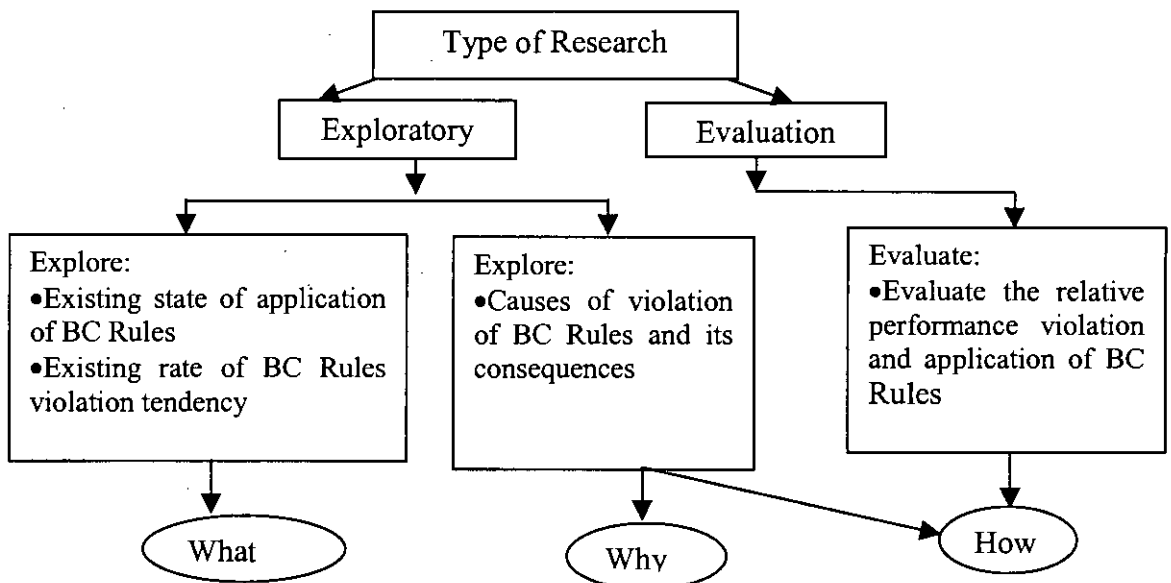
Based on the purpose, a research can be either exploratory or evaluation type or a combination of both. This study has satisfied the condition of the third type of research. It states the existing condition of application of BC rules of the residential building, present causes of violation of BC rules, the problems and issues related to them. This is the fact-finding stage of the study.

It has also evaluated the relative performance of the existing systems.

This study can give an idea about the present status of violation of BC Rules. Through this study the causes behind non-implementation of Building Construction Rules for permanent residential building has been revealed. Salient consequences (problems) due to violation of BC rules have also been highlighted through this study in Rajshahi City.

Considering all these dimensions of this study it can be said that the study has been conducted by the following basic way of knowledge seeking and trying to answer the questions related with-

Figure-3.1 Type of Research



3.2 Selection of the Study Area

The study area has been selected based on the following criteria:

Rajshahi is treated as Institutional City of Bangladesh. It is the 4th largest urban area in Bangladesh. BC Rules are the most important rules to keep residential areas as a better living environment for the city. There are 88834 residential structures in Rajshahi City. More than 4 lakh people live in this city. Though migration rate is not as high as Dhaka and Chittagong, this city is now developing day by day, so this is why Rajshahi City has been selected.

Since, this study is concerned only residential buildings, four residential areas have been selected from the whole city. *First* area from older part of the city named as Ghoramara. Most of the buildings of this area are very old. In that time rules and regulations regarding building construction was very liberal. Even no local Authority formed at that time. Here also live middle class people. *Second* area has been selected considering Older Planned Residential Area, named as Upashahar Housing Estate. In this period RDA was not formed. Directorate of Housing and Settlement made it. So scenario of this area is different from the previous one. *Third* one is Baharampur Area selected area. It was selected as spontaneous housing area in the low-income fringe area. Padma Residential Area is the *fourth* choice as a modern planned residential area. As a latest planned R/A it has followed all of the rules and regulation of building construction. This area has another specialty, that RDA formed it.

3.3 Sampling Design

Sample is designed in the following way-

3.3.1 Sample Size

Residential Buildings were considered as the sample unit and owner man/woman of each building was the respondent. In Padma R/A, out of total 619 residential buildings 62 buildings were taken as the sample. In Upashahar area, out of total 701 residential buildings, 70 buildings were taken as the sample. In Baharampur out of total 216

residential buildings, 32 buildings were taken as sample, and 37 buildings were taken as the sample from total 248 residential buildings in Ghoramara Residential Area. The sample of different percentage was taken to acquire data so that we can get accurate information and can compare easily. Table 3.1 shows the sample distribution.

Table-3.1 Sample size and sampling method

Name of Area	Total Residential Building	Unit of Study	Percent of Sample (%)	Sample Size	Building Owner Sampling Method
Padma R/A	619	Building Owner	10	62	Random Sampling
Upashahar Housing Estate	701	Building Owner	10	70	Random Sampling
Baharampur	216	Building Owner	15	32	Random Sampling
Ghoramara	248	Building Owner	15	37	Random Sampling
Total	1784			201	

Source: Field Survey March 2005

3.3.2 Sampling Method

Respondents were selected randomly from each selected residential area. Generally head of the family man or woman was the respondent.

3.4 Survey Design

This study is mainly based on primary data. Secondary data were collected to supplement primary data.

3.4.1 Primary Data Collection

Primary data were collected from various sources and in various ways. Two prime tools of data collection were structured questionnaire and checklist. Both the questionnaire and checklist were tested beforehand and necessary corrections were incorporated. Field survey carried out with a team through the following methods:

3.4.1.1 Questionnaire Survey

Socio-economic condition and Building Construction Rules and Regulations related information was collected through a questionnaire survey (Appendix-B). Besides, information on potentialities and constraints were collected with the help of questionnaire survey. Mainly above mentioned building construction rules were considered at the time of designing questionnaire.

3.4.1.2 Observation

To be familiar with the community of the study area it was necessary to observe the area through a planning and engineering seeing. At this stage physical, social, economic and environmental condition of the area and the overall life style of the community were observed through reconnaissance survey. In the physical obserbation only saw whether the owners abode by the building construction rules.

3.4.1.3 Semi Structured Interview

To know the structure, strategy, objectives, principles and the working mechanism of implementing agencies interviews of the officials and concerned persons were conducted. For this interview, checklist was used.

3.4.1.4 Interview of Key Informants

To know about the views, opinions and attitude of caretakers of the residential buildings, members of the family, local formal and informal leaders, interview of key Informants were accomplished. This interview was conducted following the checklist. Officials, researchers who were involved in this type of development activities were considered as the key informants. This interview has been conducted informally.

3.4.1.5 Participatory Appraisal

To know about the views, opinions and attitudes about the problems of the inhabitants which are created for the violation of building rules in the study area are collected through this technique. In this discussion the inhabitants of the study area and other GO and NGO officials were present.

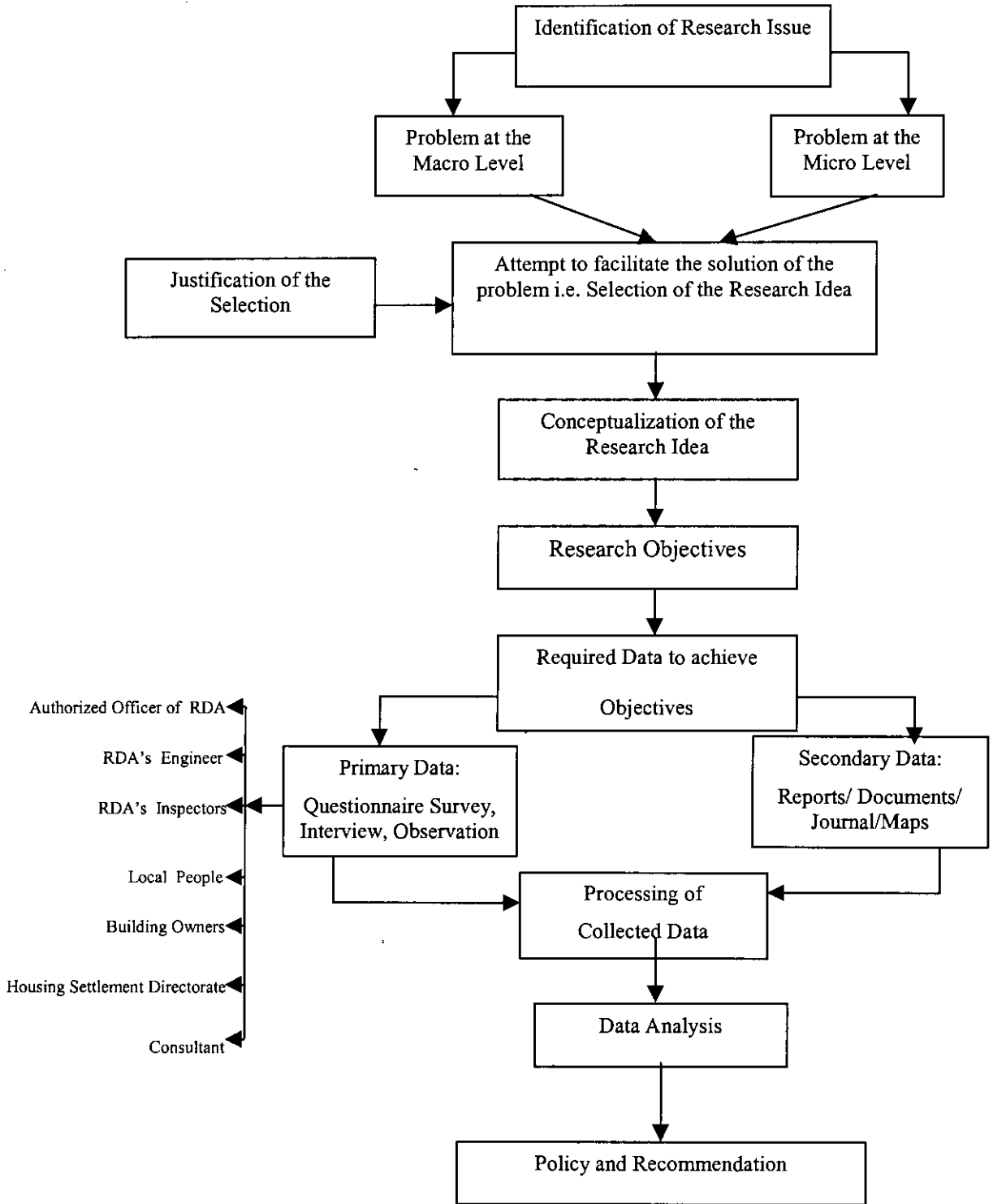
3.4.2 Collection of Secondary Data

In order to obtain basic information and better understanding of Act, Ordinance and Building By-laws, relevant literatures were reviewed and information was collected from published and unpublished sources. For this purposes, attempts were made to collect information regarding building construction, population from statistical reports, national policy, journal articles, seminar papers, unpublished thesis, published books and documents and official records of the involving agencies with the project.

3.5 Data Analysis

Data regarding the building construction, housing condition, socio-economic condition of the selected residential areas and the data collected from different agencies were analyzed for the tabular analysis and graphical analysis and presentation by computer software like, Statistical Package for Social Scientists (SPSS), MS EXCEL Some of the techniques of multivariate analysis were used for analytical purpose. Descriptive statistics such as means, frequency distributions and percentages, cross tabulation were used for data analysis.

Figure-3.2: Research Design



CHAPTER FOUR

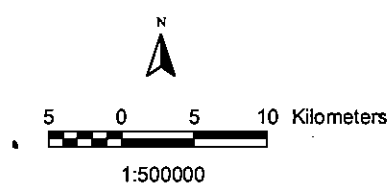
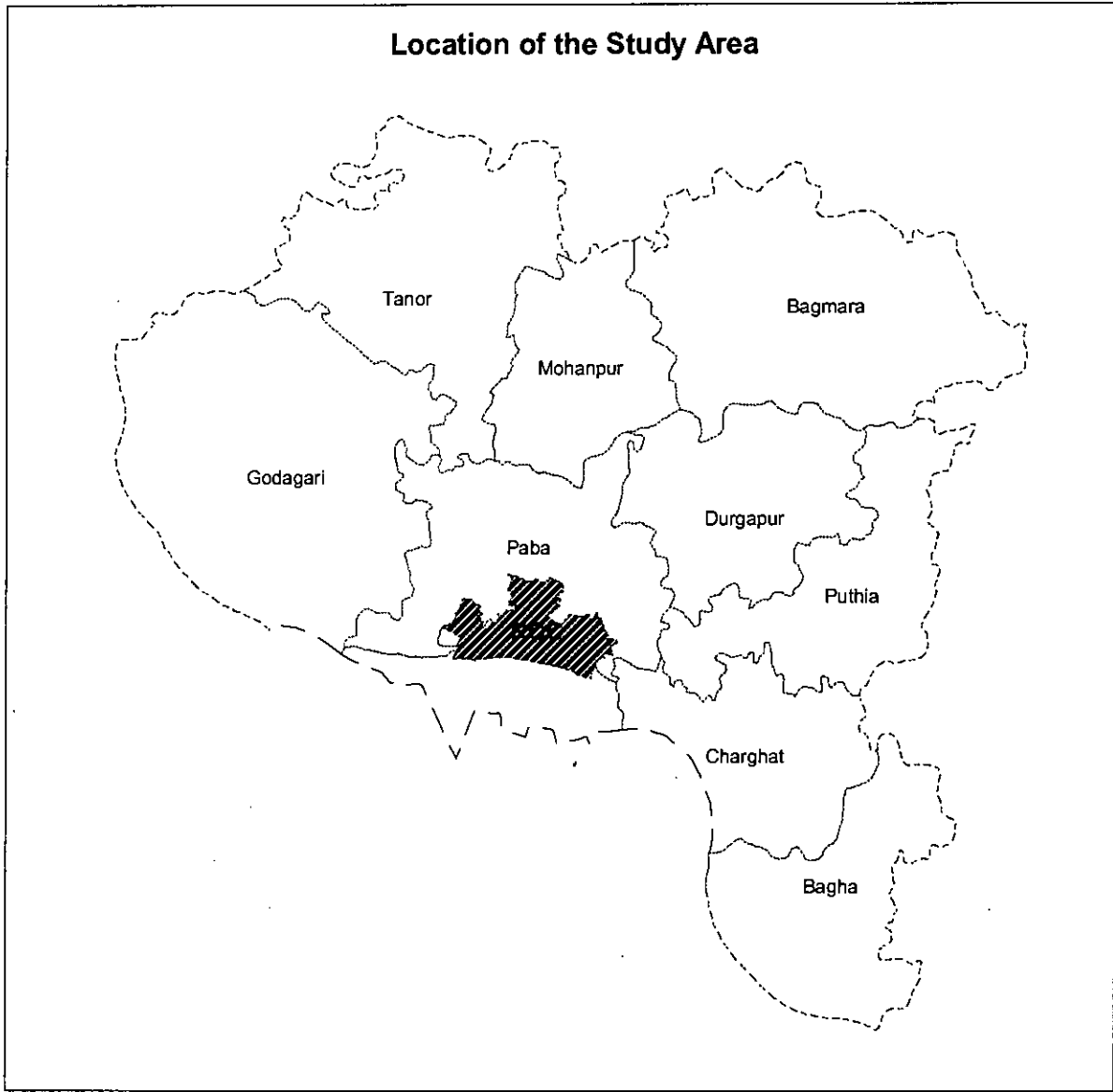
PROFILE OF THE STUDY AREA






4.1 Location of the Study Area

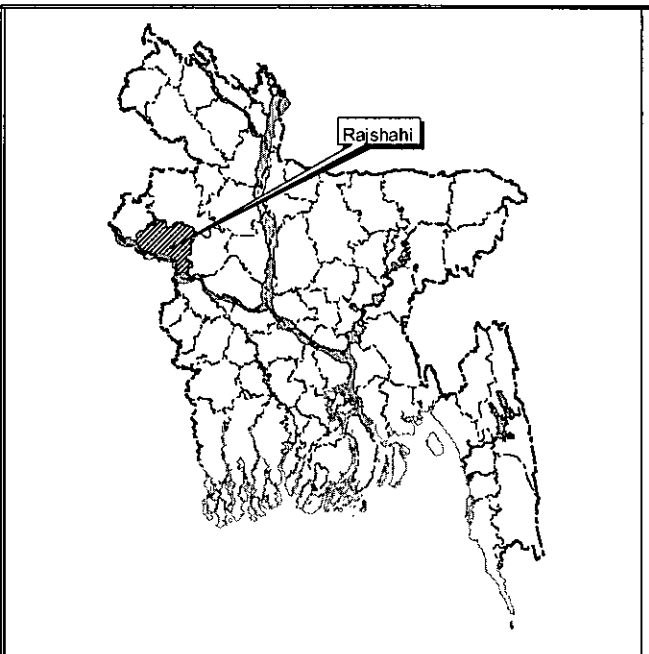
The study area is located in Rajshahi District, North-west part of Bangladesh. This city is situated on the bank of Padma River. This study area includes the Rajshahi City as well as the fringe areas within Latitude between 24° 18' and 24° 28' N and Longitude between 88° 28' and 88° 48' E. From Dhaka, the capital of Bangladesh it is located in the North-east side. Distance of the study area from the zero point of the capital is about 270 K.M.

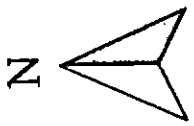
Location of the study area has been shown in the Location map of Bangladesh in the next page (see Map-4.1). Whole Rajshahi district has been highlighted in the Bangladesh map then specific study area has been located in the Rajshahi District map.

Location of the Study Area

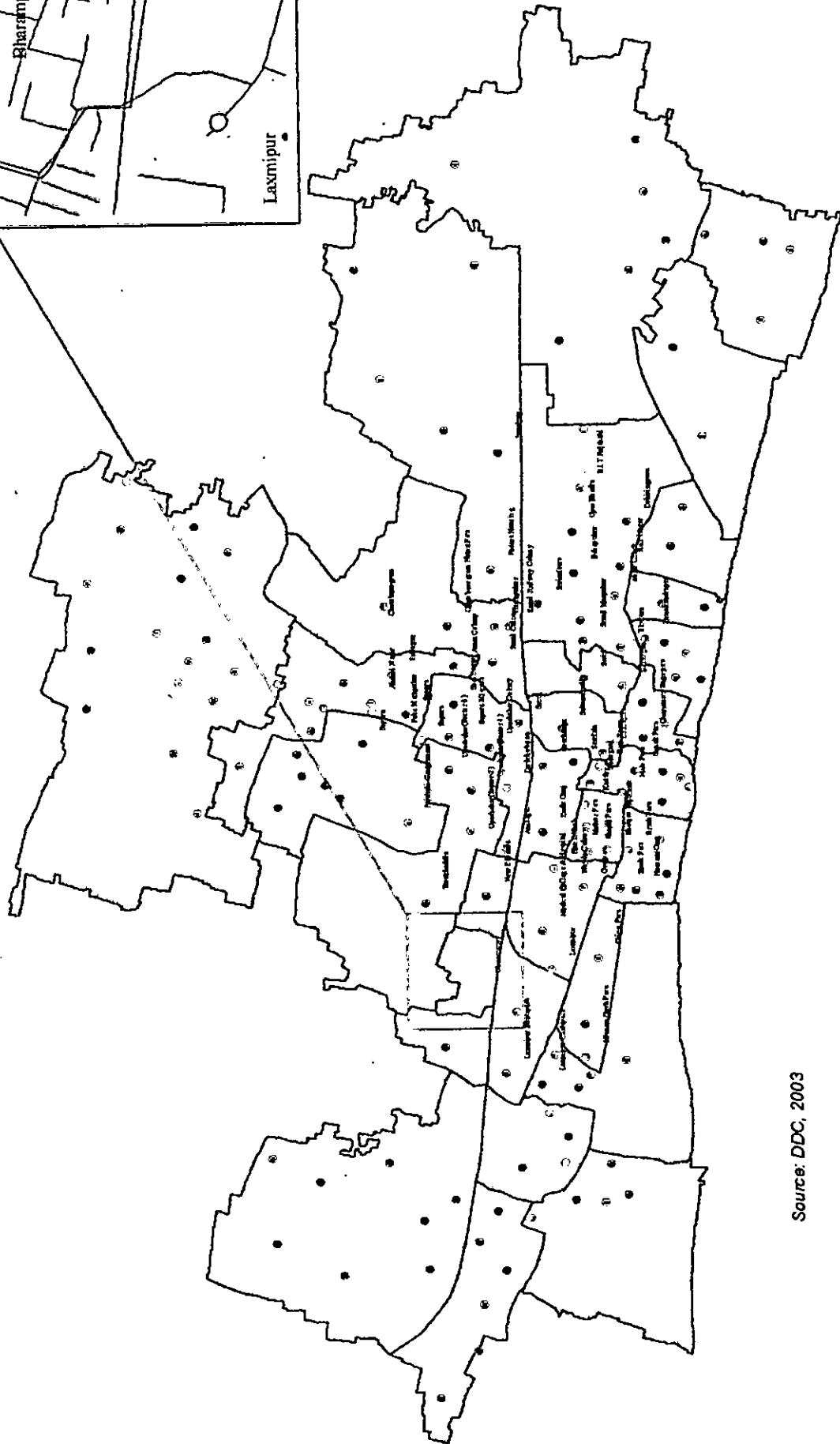


- Legend**
-  International Boundary
 -  District Boundary
 -  Thana Boundary
 -  RCC Boundary
 -  Study Area





Map 4.2: Baharampur Housing Estate



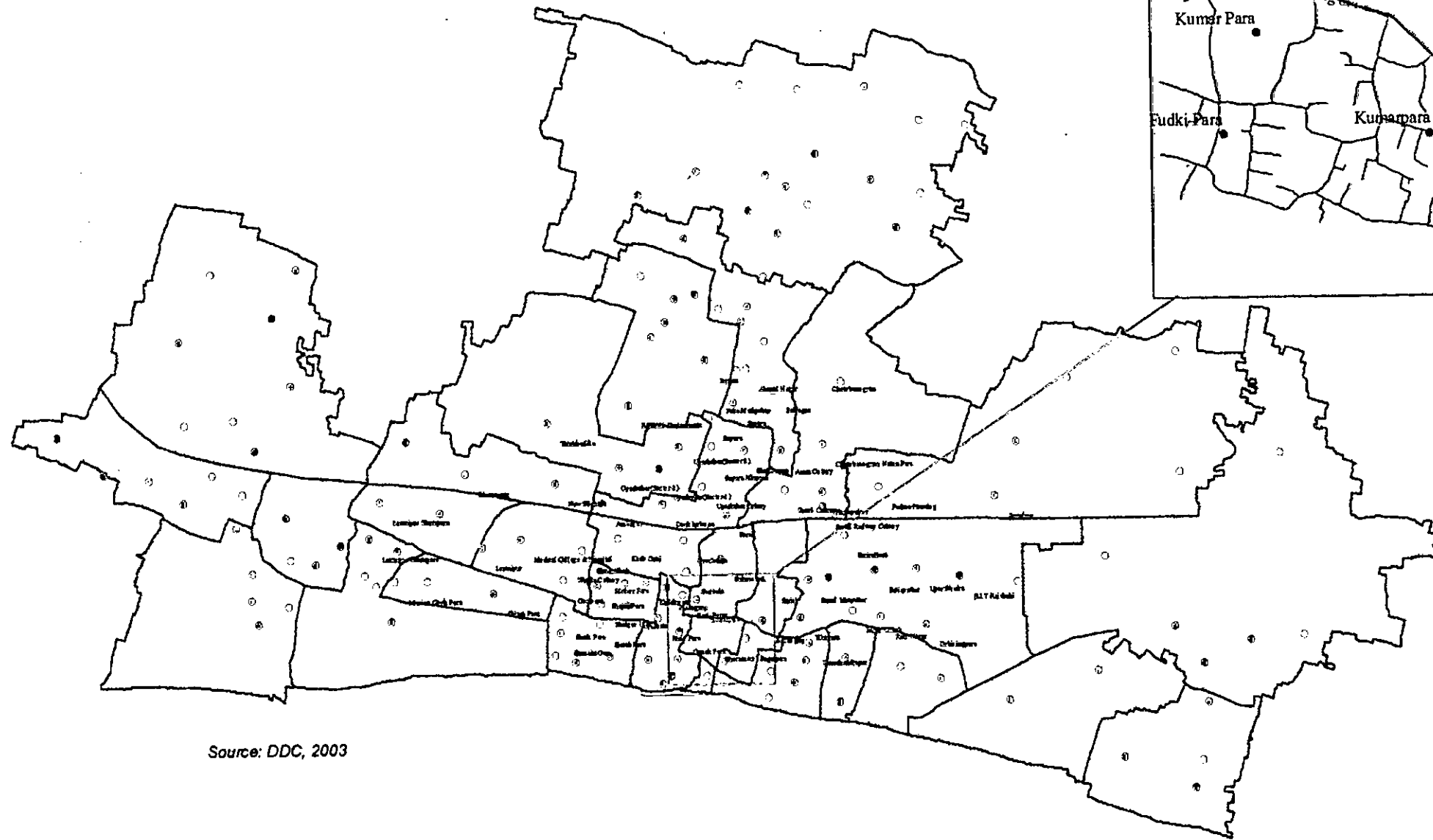
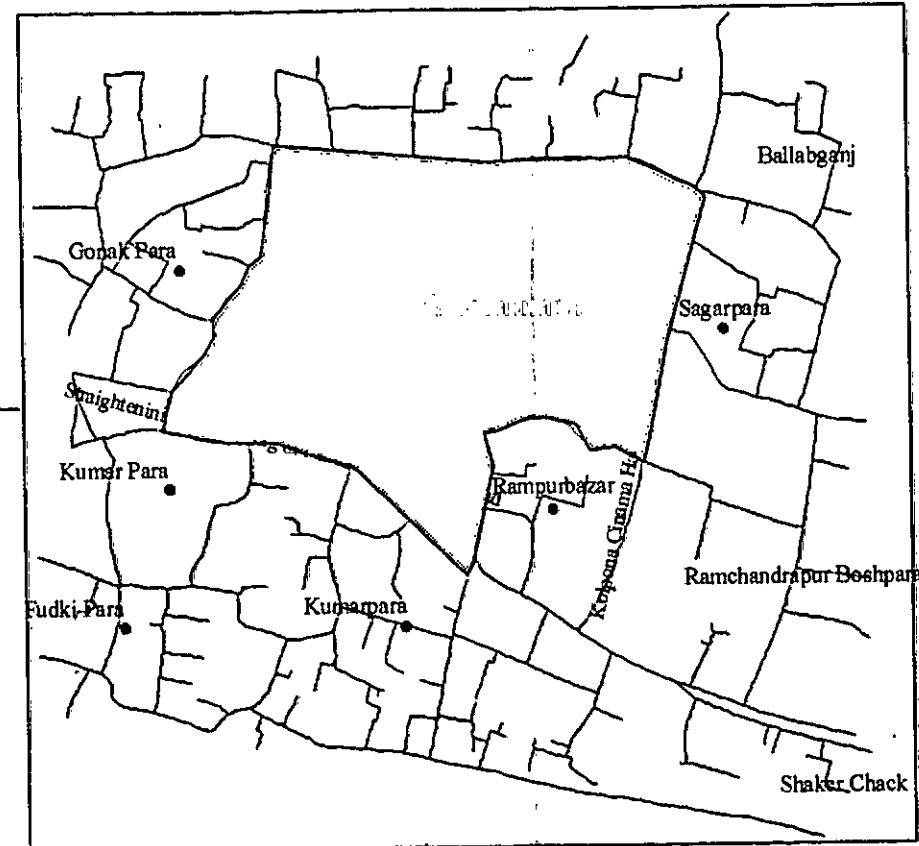
- Legend**
- Locality name
 - Road Network
 - Baharampur
 - Rajshahi



Source: DDC, 2003



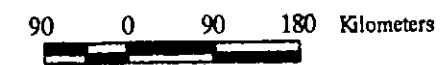
Map 4.3: Ghoramara Residential Area

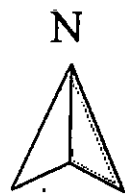


Source: DDC, 2003

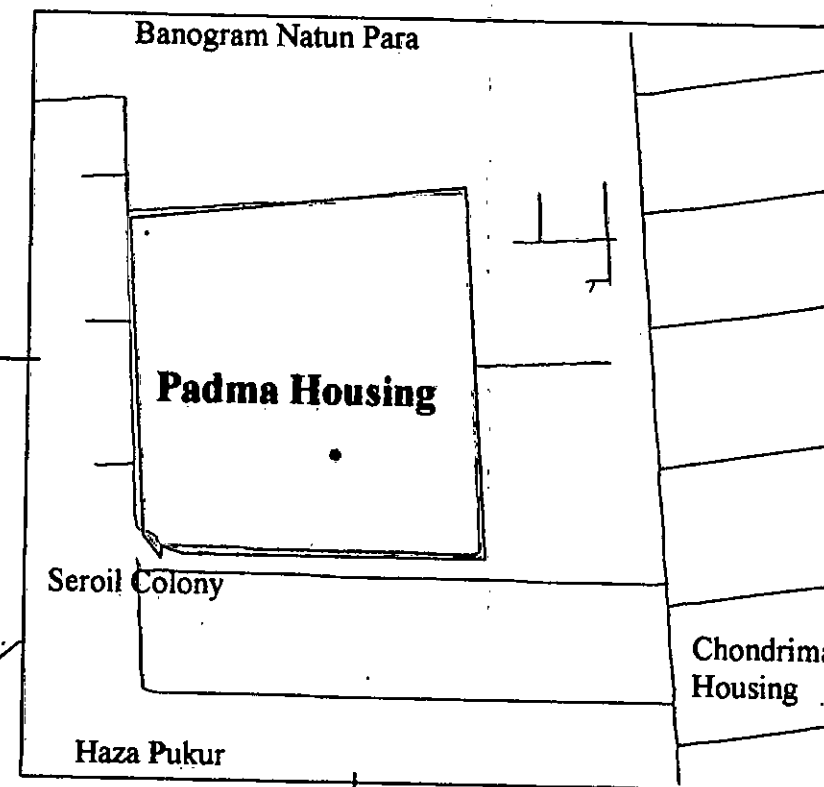
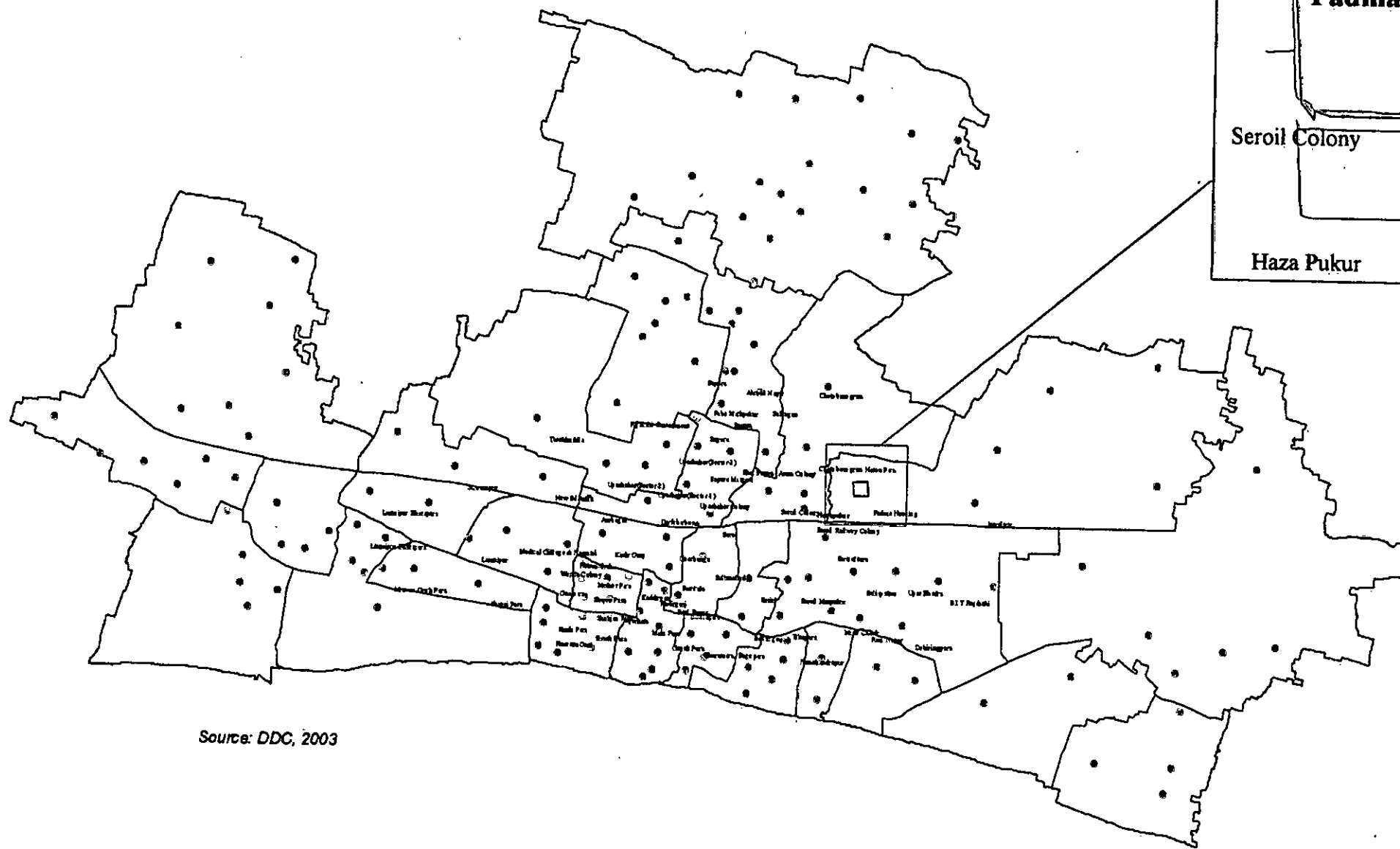
Legend

- Locality Name
- Road Network
- Ghoramara
- Rajshahi

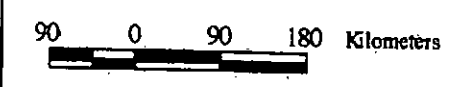




Map 4.4: Padma Residential Area

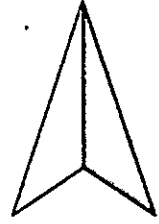


- Legend**
- Locality name
 - Road Network
 - ▭ Padma Residential Area
 - ▭ Rajshahi

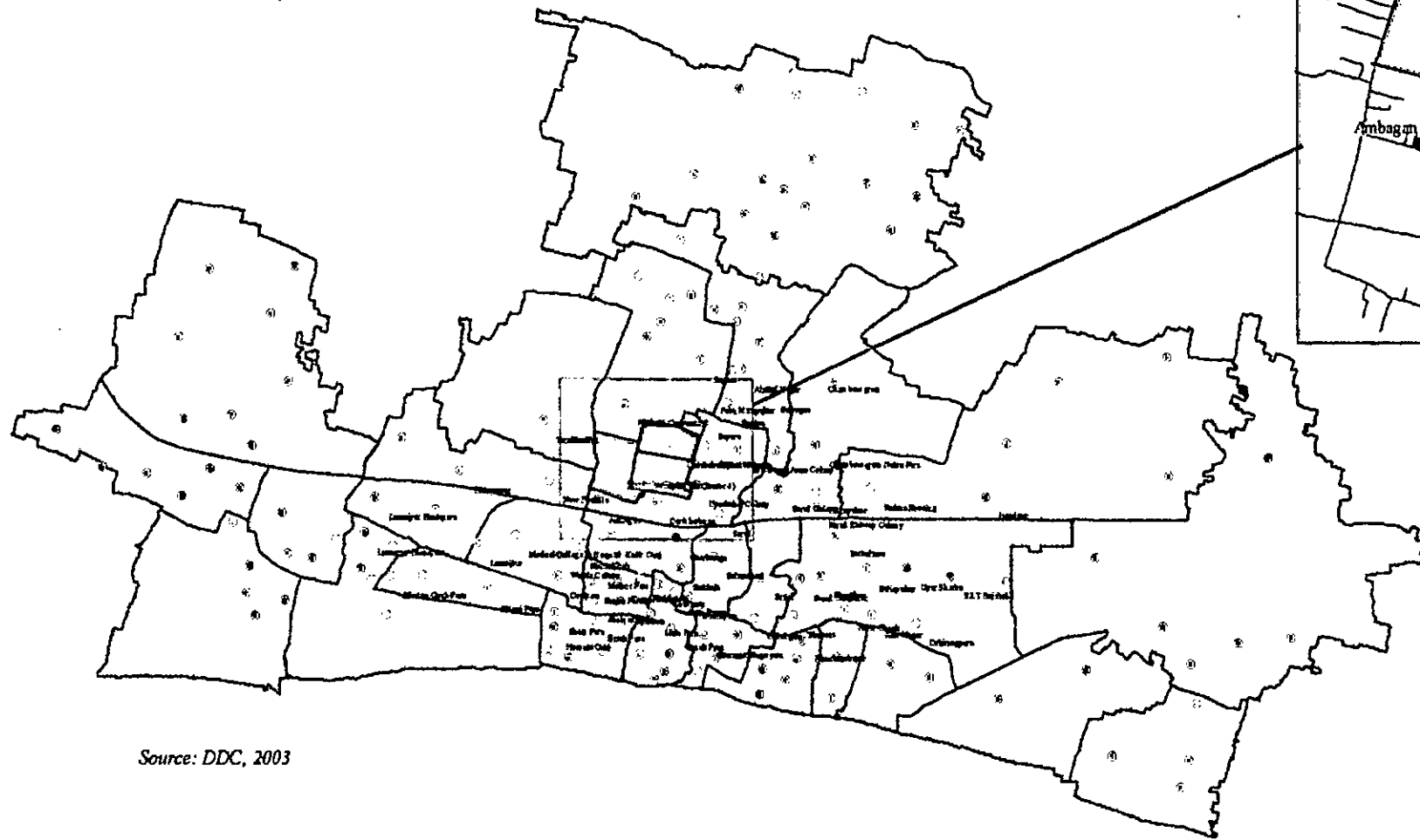
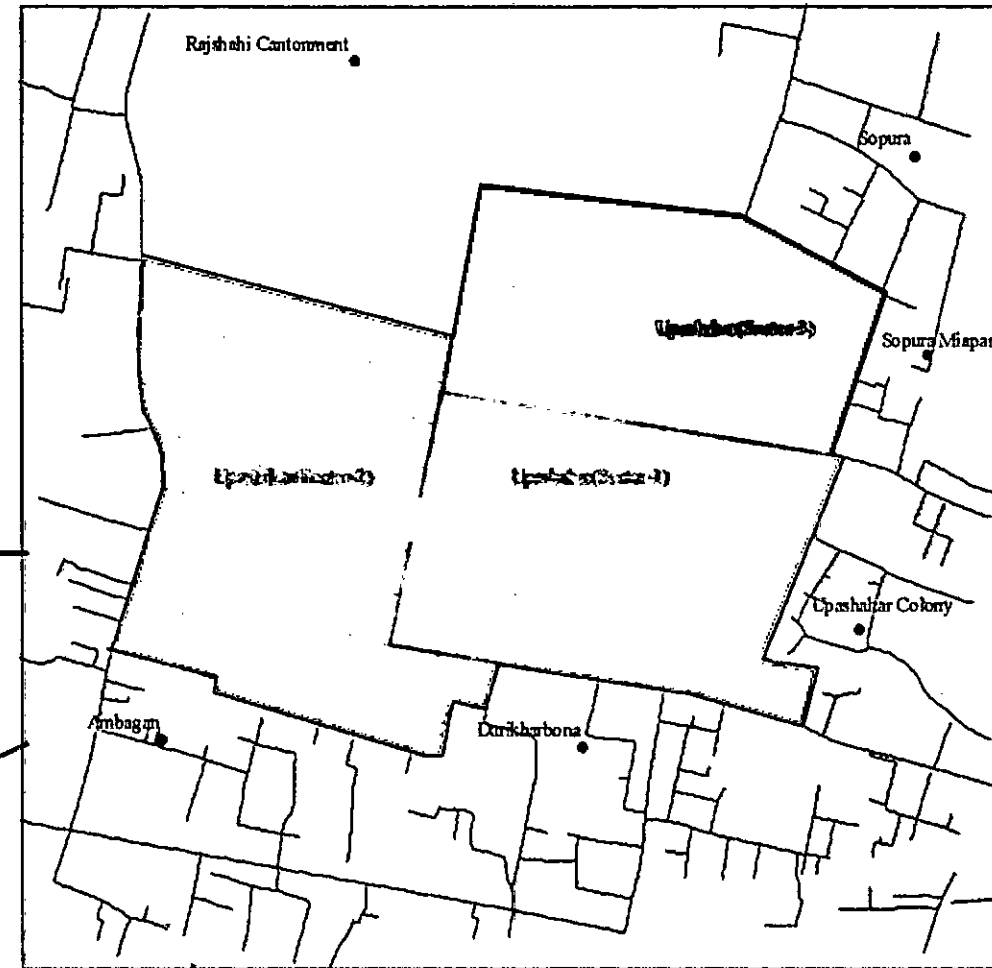


Source: DDC, 2003

N



Map 4.5 : Upashahar Housing Estate



Legend

- Locality name
- Upashahar Sector-3
- Upashahar sector-1
- Upashahar Sector-1
- Rajshahi



Source: DDC, 2003

4.2 Historical Background of the City

Before 1947 Rajshahi City was simply a district town after that it had become a divisional headquarters in 1947. In 1876 during British reign Rajshahi town gained municipal status and finally achieved the status of City Corporation in 1987. Now it is the 4th largest metropolitan city in Bangladesh next to Dhaka, Chittagong and Khulna. Over the years, it has grown as the administrative headquarters of the Rajshahi Division, and lately flourished as a centre of learning. Although agricultural activities have grown substantially in the hinterland, the growth in industrial and commercial activities has been very limited. The situation is, however, expected to change due to the introduction of new railway link with the capital across the Jamuna Bridge, Hatikamrul-Bonpara road (an important shortcut corridor to Dhaka) and expected extension of the gas pipeline up to Rajshahi.

Rajshahi is a divisional and the Primate City in the northern region of the country. With gradual increase in the importance of Rajshahi as an urban center, many government establishments and supporting land uses have developed in the city over the years. The original Rajshahi town was on mouza Srirampur, a large part of which is now under the river Padma. Shaheb Bazar, the oldest part and the original commercial hub of the city still continues with its full vigour. Harogram, on the western part of the city was chosen as a public office area. With the development of road network both the areas gradually expanded. Shaheb Bazar towards west and Harogram towards east and gradually formed a conurbation of mixed-use areas of residences, institutions and retail business. Important educational institutions, public and private offices are found in and around Shaheb Bazar area. During 50s Rajshahi University was set up followed by Engineering College (Now Rajshahi University of Engineering and Technology) in 60s and later a Medical College. Rajshahi University served as a great impetus to the growth of Rajshahi City, Engineering University and Medical College added to this force.

4.3 Topography

The Bank of the Padma river from Gopalpur to Charghat (about 20 Km) is at an elevated place. From the court point to Sahapur, it is further elevated and protected by Rajshahi city flood protection embankment. The general ground elevation in this area varies from 17.0 m to 18 m 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 southeast to northwest direction (due to the influence of the Baral river basin) at the eastern side, at Charghat area. At the north, the river Barnai 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 Barnai and further south is from north to south. Study area landform has taken place by sedimentation process of the Padma and Barnai rivers. Thus some of the areas in between these rivers, the land are low and/ or there exists the Beels like Duari, Tikure, Foliar and Silindar etc. and khals or small spill channels or feeder channels off taking from or out falling into these rivers. These are namely Duari Khal, Keshobpur Khal, Tikure Khal, Satbaria Khal, Kata khali Khal, Barajal Khal, and Hoja Khal etc. The Sib-Barnai river course may be considered as the major natural faults in the area, coming from the north (Niamatpur Upazila) to south and taken to the Naldanga Railway Bridge in Natore (DDC, 2003).

4.4 Soil and Climate

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 basin made up of quaternary sediments having varied thickness ranging from a few hundred meters along the northern limit 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 sedimentary disposition by two of the world's mighty rivers to the braiding and meandering pattern of the recent flood plain further down stream. The meandering streams of the Pleistocene surface (made up of

cohesive material such as clay) between the Ganges and the Brahmaputra river show numerous cut-off and oxbow lakes indicating that the alluvial deposits (mainly fine sand with silt) are less consolidated (DDC, 2003).

The soil characteristics of the area can be described as the geological succession consisting of a series of inter-bedded silt/clay and sandy layers. It is observed from the geological cross section that inter-bedded layers of very loose to loose and loose to medium dense non-plastic fine sandy silt and silty fine sand exist in the area. Inter-bedded 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. Inter-bedded 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 underline these layers (DDC, 2003).

Rajshahi is in a sub-tropical monsoon climate region. Temperature is low in January and varies between 8.8°C to 25.9°C. From February temperature is found to increase and continue 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 (DDC, 2003).

The mean relative humidity is found to low in March (60.2%) and it is high in August-September (88.4%). A high wind speed is observed during April to June, most of the nor'wester 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 2,320 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, 355.61 mm and 358.43 mm, respectively (DDC, 2003).

4.5 Demography

The Rajshahi region, comprising the greater Rajshahi District, includes the present Rajshahi, Naogaon, Natore and Nawabganj districts was a moderately urbanized with Rajshahi city as the primate city of the region. The size and growth of urban population in the region in 1991 and 2001 population census have been presented in Table-4.1

Table-4.1 Urban growth in the Rajshahi region

Component Districts of the Rajshahi Region	1991 Population Census			2001 Population Census		
	Total Population (million)	Urban Population (million)	% Urban	Total Population (million)	Urban Population (million)	% Urban
Rajshahi of which Rajshahi SMA	1.88	0.577 (0.545)	32.1	2.26 (0.646)	0.741 (0.646)	32.8
Naogaon	2.14	0.170	7.9	2.38	0.198	8.3
Natore	1.387	0.159	11.5	1.521	0.124	8.2
Nawabganj	1.17	0.218	18.6	1.419	0.245	17.2
Rajshahi Region	6.57	1.124	17.11	7.58	1.308	17.3

Source: BBS, 1991 & 2001

The population of Rajshahi City (RCC Area) is about 3.83 lakh (Bangladesh population census 2001). The comparison shows that the Rajshahi region is around 17% urbanized, which is less than the current overall rate of urbanization in the country. Of all the districts of the region Rajshahi is the most urbanized, around 32%, and this is due to the location of Rajshahi SMA in the district. In fact as the primate city of the region Rajshahi SMA accounts for around 50% of the total urban population of the region and nearly 90% of the district urban population. Naogaon and Natore are the two least urbanized districts of the region with around 8% urbanized (BBS, 1991 & 2001).

The most striking fact is that the level of urbanization in the region as well as in the district of Rajshahi has remained unchanged in the last decade since 1991 Population Census. This signifies that urban growth in the region and in the SMA in particular, has been due, primarily, to natural growth of the urban population. The other two proximate determinants of urban growth in Bangladesh, namely, migration from rural areas and re-demarcation of the urban boundary have not been significant in Rajshahi as in the case of Dhaka Mega City. The last demarcation of the Rajshahi SMA

boundary was during the 1991 Population Census and the boundary remained the same in the 2001 Population Census. The absence of rural migration as a major growth factor in the case of Rajshahi SMA signifies absence of its socio-economic pull factors. This is primarily due to lack of economic investments on a significant scale in the area, which has critical implications for its future growth and development (DDC, 2003).

Lack of investment and consequent lack of economic opportunities in urban Rajshahi, representing mostly the Rajshahi SMA or the study area, is also indicated by its declining contribution to the District GDP compared to the rural areas of the district in recent years. The Table-4.2, compiled from the district and regional GDPs estimated by the BBS provides the relevant picture.

Table-4.2 Changes in the contribution of urban Rajshahi to GDP of the Rajshahi district 1995-96 to 1999-2000

% Contribution in	Sectors	1995-96	1999-2000
Current Prices	Urban	44.1	40.0
	Rural	55.9	60.0
Constant prices	Urban	44.1	42.7
	Rural	55.9	57.3

Source: Provisional Estimates of Gross Regional Products, and 1995-96 to 1999-2000, BBS May 2002.

Note: Value added of the industries has allocated between Urban and rural areas. In the following proportions: Agriculture 100% to rural areas. Industry 50-50 between rural and urban areas, Mining entirely to rural areas, electricity, gas and water supply-100% to urban areas, Construction, trade and transport, Education and Health, Real Estate, Community and Social and personal services: 2/3rds to urban areas, Financial Intermediation, Public administration entirely to urban areas.

The Rajshahi Master Plan Project Study Area (henceforth RDA) roughly coincides with the Rajshahi Statistical Metropolitan Area (SMA). Currently, Rajshahi SMA is the fourth largest urban conurbation in the country. The position of the population size of Rajshahi SMA compared to those of the other three largest SMAs in the country in the last two population censuses is shown in the following Table-4.3.

Table-4.3 Population size and growth pattern in the Rajshahi SMA compared to the other three largest urban conurbations of Bangladesh

SMA	Population in 1991 Pop. Census (Million)	Population in 2001 Pop. Census (Million)	Annual Growth Rate (1991-2001) of Population (%)	Addition of Population per year (000)
Dhaka	6.95	9.91	4.26	2.96
Chittagong	2.34	3.20	3.64	85
Khulna	1.00	1.20	2.25	23
Rajshahi	0.54	0.65	1.87	10

Sources: Population Census 1991 and preliminary report of 2001 Population census; BBS

Note: Rajshahi SMA consists of RCC and the whole of the adjoining Paba Thana

Several interesting conclusions emerge from the comparative picture presented in the table of the four SMAs, the annual growth rate of population in the decade between 1991 and 2001 was the slowest in the Rajshahi SMA and fastest in the Dhaka SMA. In the decade 1991 - 2001 Dhaka SMA grew at the rate of 4.26 per annum, while Rajshahi SMA grew at a much slower rate of 1.87% per annum. This meant that in absolute terms between 1991 - 2001 nearly 3 lakh (2.96 lakh) persons were being added to Dhaka SMA population every year. Of them the majority, around 2.15 lakhs, were net migrants. In case of Rajshahi SMA net annual increment in absolute term was only around 10,000, of which only a small portion, around 3000 was net migrants. Net migration rate is a key indicator of urban economic growth. Lower demographic growth of the area resulting primarily from the slackening of the net migration rate is an indicator of slower economic growth in the Rajshahi SMA in the decade 1991-2001.

Table-4.4 Population size and growth pattern comparison: Rajshahi SMA other three major urban conurbation's of Bangladesh

SMA	Population in 1991 Pop. Census (Million)	Population in 2001 Pop. Census (Million)	Annual Growth Rate (1991-2001) of Population (%)	Addition of Population per year (000)
Dhaka	6.95	9.91	4.26	296
Chittagong	2.34	3.20	3.64	86
Khulna	1.00	1.20	2.25	20
Rajshahi	0.54	0.65	1.87	11

Sources: Population Census 1991 and preliminary report of 2001

Note: Rajshahi SMA consists of RCC and the whole of the adjoining Paba Thana.

The development of Metropolitan City of Rajshahi, with the population of about 0.38 million, does not reveal the manifestation of population growth and movement in Bangladesh. The SMA data indicates that the population of Metropolitan Rajshahi had increased by 1.73 percent per year, slightly higher than the national growth rate of 1.47 (as shown Appendix-A) during the last decade as against 7.94 percent per year during the period 1981-1991 and thus its growth rate have decreased at the rate of 6.21 percent per year. Metropolitan Rajshahi thus does not appear to be the focus of urbanization in the region. The growth pattern of the Metropolitan area covers about 187 square kilometers, although the developed portion is only about 60 square kilometers (45.84%). The Metro-Rajshahi also displays a highly mixed pattern of land use extending east west and north south (recent trend) linearly along the main roads.

4.6 Profile of Selected Residential Areas in the City

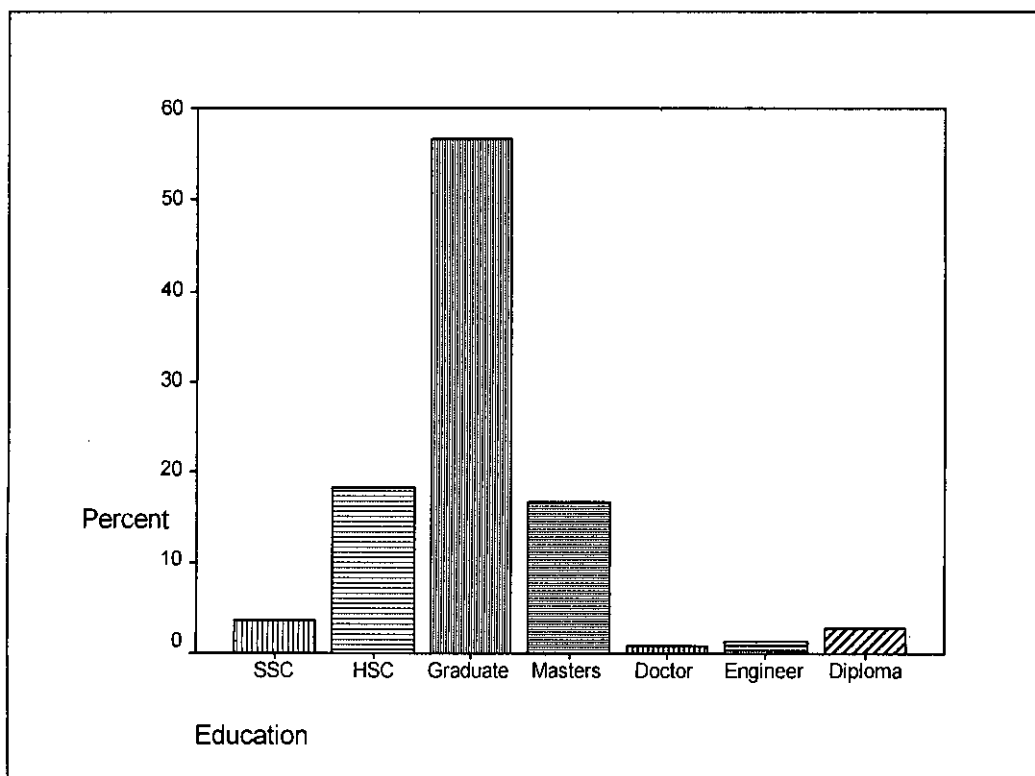
For the present study the different areas of RCC have been selected on the basis of spatial development or settlement pattern. Among these areas the trend or nature of building construction has different varieties. These areas are characterized by both older part of the city, just after RDA establishment and newly, spontaneous grown area and city fringe. Here is a brief of the areas. Occupation, education and income of the area are shown on the following tables and figures-

Table-4.5 Occupation wise monthly income of the selected areas

Study Area	Monthly Income (in Tk)					
	Service			Business		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Padma R/A	9000	15000	4000	17267	50000	10000
Upashahar Housing Estate	8111	15000	4000	10379	80000	4000
Baharampur	5100	8000	3500	5000	10000	3000
Ghoramara	9087	30000	4000	12000	8000	2000

Source: Field Survey, 2005

In the study area average income of the businessmen is higher than the average income of the service holders. Only exception in Baharampur where mean income of the service holders is higher than the mean income of the businessmen. In Ghoramara it is noticed that more disparity exists between high income and low income in respect of service and business. The lowest earning is found in Ghoramara area among the businessmen and it is Tk. 2,000.00 only. Among the selected four areas incomes from both service and business are lower in the Baharampur than other areas. Over all feature of the city is that businessmen earn more than the service holders. The highest earning businessmen (earn Tk. 80,000.00) live in Upashahar Housing Estate and the highest earning servicemen (earn Tk. 30,000.00) live in Ghoramara. Average income of service holders is higher in Ghoramara than other three areas and average income of businessman is higher in Padma Residential Area than other areas.



Source: Field Survey, 2005

Figure 4.1: Education level of the selected residential areas of Rajshahi City

Above bar diagram represents that in the study area maximum populations are graduates. The percentage of the graduate falls in the range of 50% to 60%. Percentage of HSC and Masters more or less equal. Professionals like Doctors, Engineers and Diplomas are the lowest in number.

4.6.1 Ghoramara

It is an unplanned older part of the City. It is situated on the riverbank of The Padma in the ward-number 22. It is heard that Rajshahi City was originated from this region. This is why most of the structures here are very old. This is very densely populated residential area of the Rajshahi City. Mixed income people live here (DDC, 2003).

4.6.2 Upashahar Housing Estate

Upashahar is the first planned residential area of the city developed in the late sixties in the extended part of the city beyond railway line situated under Ward No. 16. The area has total population of 8272 (BBS, 1991) persons and a gross density of about 56 persons per acre. The Ward 16 has an overall gross density of only 15 persons per acre. It has on its east the Bypass Road and beyond that is Seroil Modpukur area of the same Ward. On the north there are Cantonment and Sopura BSCIC Industrial Estate and on the south is the railway line. According to 1991 population census about 81 percent of the people of the area were found literate. The most dominant income earning activities of the people of the area are business (21.35%) and service (2.93%) and varieties of other (75.72%) non-agricultural occupations. About 95.42 percent of the structures of the area are of permanent type. The rest of the structures made semi-permanent and temporary materials are only temporarily used. Type of construction of structures indicates that the area is a high-income area. Out of total 1419 households of this mahalla about 56 percent are found to use municipal water. About 43 percent most households use their own tube well water for drinking water supply. About 94 percent of the households use sanitary latrines over 91 percent households have electricity connection. About 53 percent live in their own houses and the rest are tenant as per 1991 population census. All the plots of the area as well as all the buildings areas not fully developed and leave scope for densification (DDC, 2003).

4.6.3 Baharampur

This is a middle income housing *mahalla* in the eastern fringe of the city under Ward No. 30. Total population of the mahalla was 4168 persons (1991) having a total household of 797. About 28 percent of the dwelling units are *kutchha*, 57 percent are *semi-pucca* and only 15.30 percent are permanent structures. It is a low-income area and inhabitants work in various sectors like, agriculture, industry and some are self-employed businessmen. About 15 percent are engaged in agricultural sector, about 11 percent in industries as workers, about 5.11 percent in transport, 24.17 percent in small business and 1.50 percent in service. Rest of the people is engaged in a wide variety of informal incomes earning activities. The area did not have any piped water supply system till 1991. All households had to use own tube wells for water. Piped water has been extended to this area lately. As per 1991 BBS data only about 34 percent families used sanitary latrines, of the rest over 43 percent used various other unhygienic sanitary facilities, while 23 percent used open fields. The situation has certainly improved now. Only 19 percent households used to live in their own houses. Rest of the inhabitants of the locality was a tenant. The area has a density of only 16 percent per acre, which still low due to its near fringe location (DDC, 2003).

4.6.4 Padma Residential Area

This is a high-income residential area of Rajshahi City. It is one of the planned residential areas of RDA. It is located at Vodra fringe of the city under Ward No.26. Total population of the area is 2325 persons (Field Survey, March 2005) having a total household of 628. It is a high-income area and inhabitants work in various sectors but most are self-employed businessmen. 78 percent households are used to live in their own houses and others inhabitants of this area are tenants. The area has a density of only 8 percent per acre, which still low due to its near fringe location (DDC, 2003).

CHAPTER FIVE

STATUS OF APPLICATION OF BC RULES IN RAJSHAHI CITY

5.1 General

Present situation of application of Building Construction (BC) Rule in Rajshahi is not in a good position. BC Rules are found mostly violated in the older part of the city as well as spontaneous low income housing areas. Here violation statistics is given in the following table.

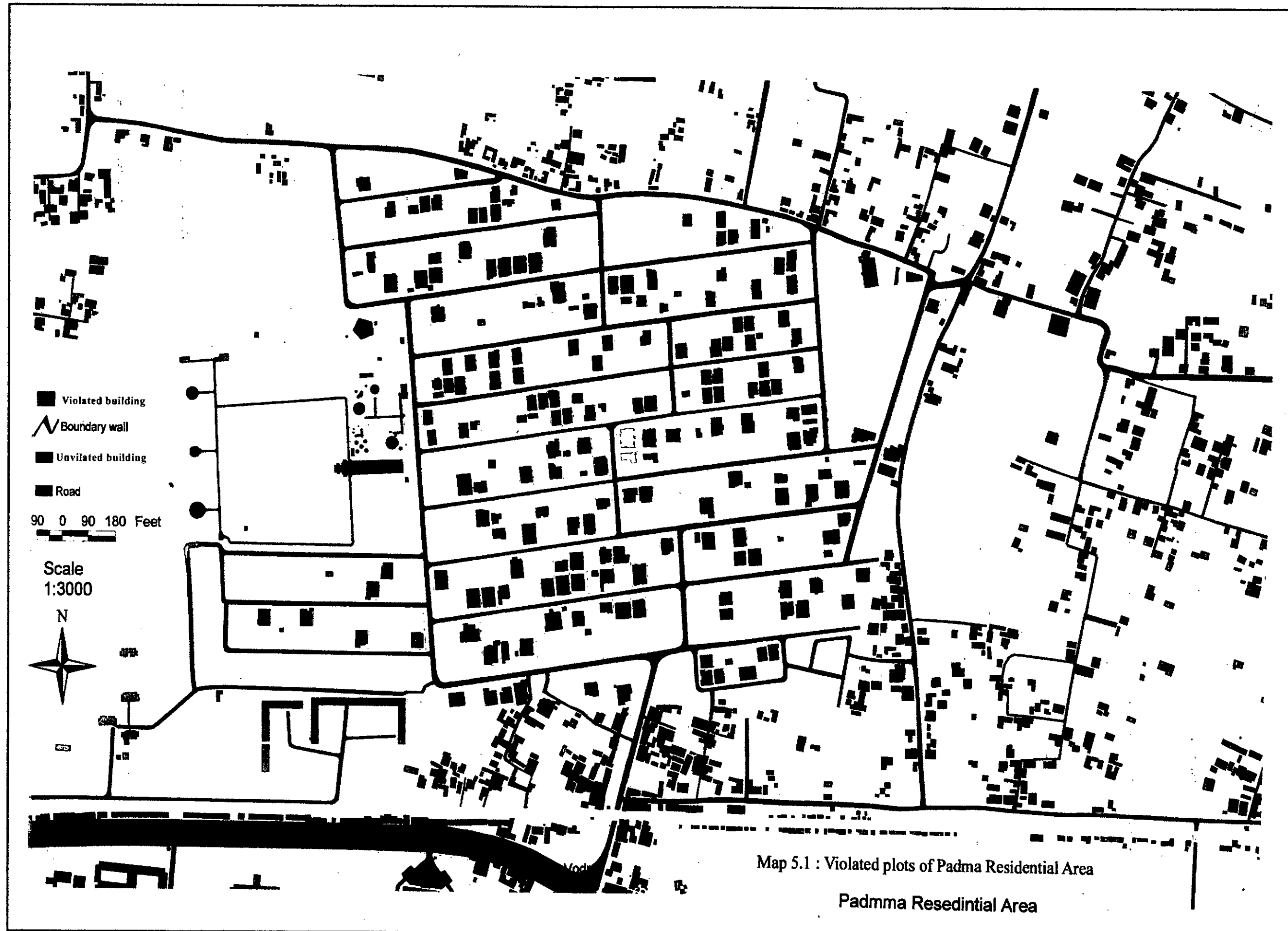
Table 5.1: BC rules violation statistics in the study area

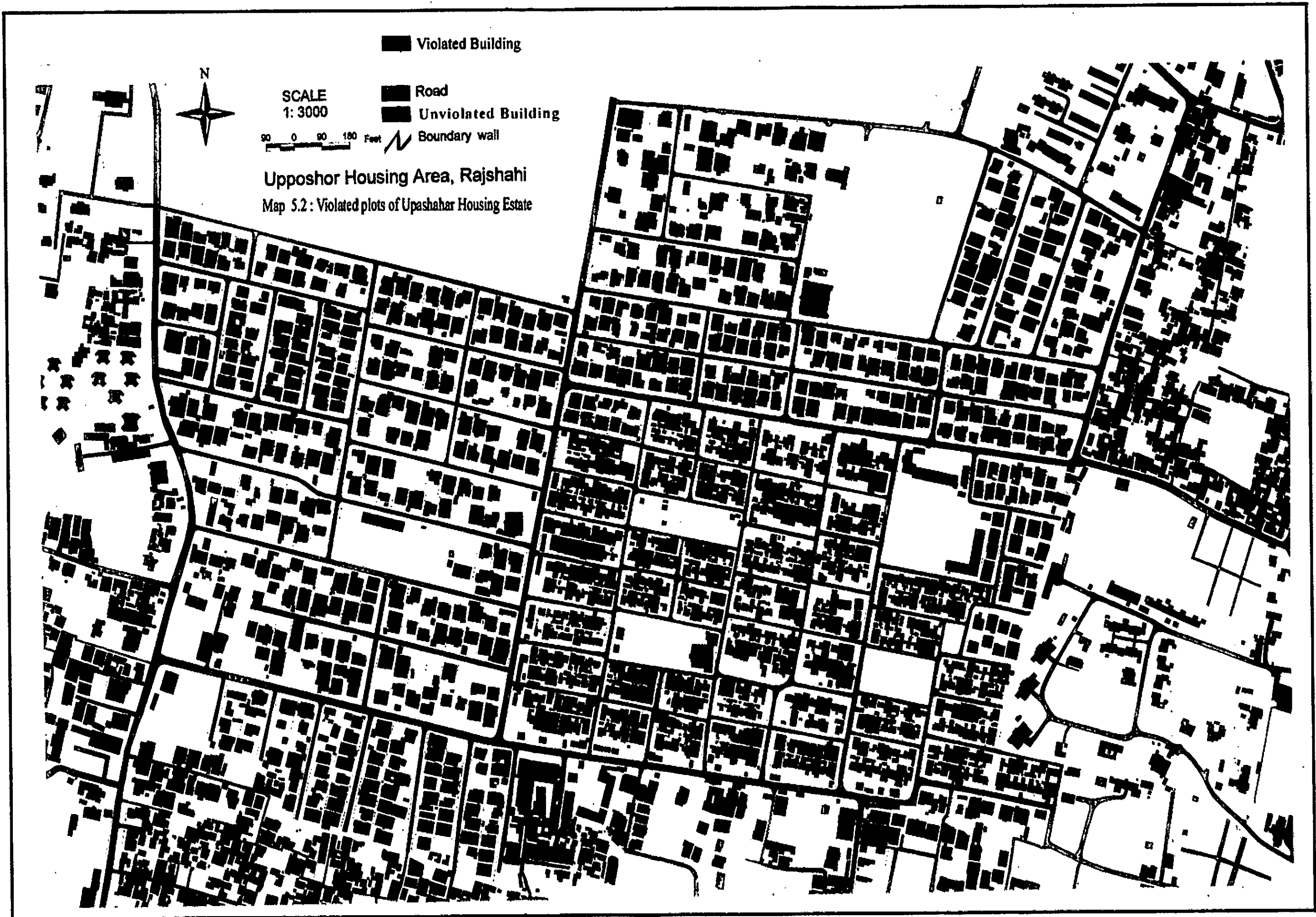
Name of the Residential Area	No. of Violated Residential Units	Total	% Out of Total	% of Violation Out of the Buildings in Respective R/A
Padma R/A	32	62	25	52
Upashahar Housing Estate	45	70	35	64
Baharampur	22	32	17	70
Ghoramara	29	37	23	78
Total	128	201		100

Source: Field survey, 2005

Highest number of violated residential units is existed in the Ghoramara & Baharampur residential area and violation of BC Rules is relatively lower in the two planned residential areas. For enquiring the application of BC rules in detail, component wise analysis is presented and components are in the following.

Violated plots of Padma and Upashahar Housing Estate are given in the Map 5.1 and Map 5.2.





Violated Building

Road

Unviolated Building

Boundary wall



SCALE
1: 3000

90 0 90 180 Feet

Upposhor Housing Area, Rajshahi
Map 5.2 : Violated plots of Upashahar Housing Estate

5.2 Application of Setback Rules

Set back rules are the important component of Building Construction Rules.

According to Building Construction Rules, setback rules are given in the following.

Every residential unit has to leave the following spaces at

- Font Side space 1.5 meter
- Left side space 1.25 meter
- Right side space 1.25 meter
- Back Side space 1.83 meter

Application of this set back rule is illustrated in the following.

Table 5.2: Status of the setback rules in different residential areas

Types of Rule Violation		Name of the Residential Areas							
		Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
		No.	%	No.	%	No.	%	No.	%
Violation of front & back	Front side inadequate Space	30	48	45	64	22	70	27	72
	Back side inadequate Space	24	39	36	51	22	70	26	70
	Both Front and back side inadequate Space	21	34	36	51	22	70	25	68
No violation of 1 st rule		41	66	34	49	10	30	12	32
Violation of left and right side setback rules	Left side inadequate space	32	52	35	50	22	70	29	78
	Right side inadequate space	30	48	37	53	21	69	27	72
	Both side inadequate space	29	47	34	49	21	69	28	76
No violation of 2 nd rule		33	53	36	51	11	31	09	24
Violation of all setback rules	Both front, back, left and right side inadequate space	21	34	32	46	20	63	24	65
Set back rules violated residential buildings		32	52	45	64	22	70	29	78
No violated buildings		30	48	25	36	10	30	08	22

Source: Field Survey, 2005

The above table shows the violation status of the set back rules in the four study area. Set back rules violation is seen in the Ghoramara area and about 78% residents of the Ghoramara area violate the set back rules. About 70% residents of Baharampur area violate the set back rules and these residents are the second highest violators between all residential areas. Padma and Upashahar Housing Estate are the two planned residential areas and among the two residential areas, the residents of Upashahar are more violator than the residents of Padma residential areas. Between all the residential areas, maximum residents of the Baharampur and Ghoramara violated the 1st set back rules and about 70% residents of two residential areas did not keep adequate spaces both front and back spaces at the time of building construction. Residents of the two planned residential areas are the less violator of the 1st rules. The violation scenario of the other rules (inadequate space of left and right side) is same as the violation of the 1st rule.

Here level of violation is presented.

Table 5.3: Leaving space at the front side of the building

Left space at the front side of the building		Name of the Residential Areas							
		Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
		No	%	No	%	No	%	No	%
Violated	0.5-0.8 meter	17	27	26	37.14	15	46.8	14	37.8
	0.8-1.1meter	06	10	12	17.14	04	12.5	07	18.9
	1.1- 1.3 meter	04	06	06	8.57	02	6.2	05	13.5
	1.3-1.5 meter	03	05	01	1.42	01	3.1	02	5.40
	Total	30	48	45	64.28	22	69	27	73
Non-violated	1.5 meter & above	32	52	25	35.79	10	31	10	27
Grand Total		62	100	70	100	32	100	37	100

Source: Field Survey, 2005

The above table shows space left at the front of the residential buildings in the four study areas. Forty eight percentage of residential buildings of Padma R/A, sixty four residential buildings of Upashahar Housing Estate, sixty nine residential buildings of Baharampur and 73% residential buildings of Ghoramara were left 0.5 – 1.5 meter space at the front of the building and these buildings violate the front side setback rule. The front side rule violation figure is near about 50% in all the residential areas.

Among the front side rule violated buildings, maximum buildings left only 0.5 to 0.8 meter at the front and in other categories, violation figure is about to same.

Table 5.4: Leaving space at the back side of the building

Left space at the back	Name of the Residential Areas							
	Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
	No	%	No	%	No	%	No	%
0.5-0.8 meter	13	21	22	35	11	34	14	38
0.8-1.1meter	05	8	09	15	04	13	07	19
1.1- 1.3 meter	03	5	02	3	04	13	04	11
1.3-1.5 meter	01	2	03	5	03	9	01	3
1.5-1.83 meter	02	3	00	0	00	0	00	0
Total	24	39	36	58	22	69	26	70
1.83 meter and above	38	61	36	58	10	31	11	30
Total	62	100	62	100	32	100	37	100

Source: Field Survey, 2005

The above table shows the space left at the back of the residential buildings in the four study areas. 39% residential buildings of Padma R/A, 58% residential buildings of Upashahar Housing Estate, 69% residential buildings of Baharampur and 70% residential buildings of Ghoramara were left 0.5 – 1.83 meter space at the back of the building and these buildings violate the back side setback rule. This violation scenario is lesser in the two planned residential areas and violation of back side rule is more in the two unplanned residential areas. Among the back side rule violated buildings, maximum buildings left only 0.5 to 0.8 meter at the back and in other categories, violation figure is about to same.

Table 5.5: Level of violation at the left side of the building

Left space at the left side of the building		Name of the Residential Areas							
		Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
		No	%	No	%	No	%	No	%
Violator	0.5-0.8 meter	21	34	15	21	12	37.5	12	32
	0.8-1.1meter	11	18	12	17	08	25	17	46
	1.1- 1.25 meter	00	0	10	14	02	6.25	00	0
	Total	32	52	35	50	22	68.75	29	78
Non-Violator	1.25 meter and Above	30	48	35	50	10	31.25	08	22
Total		62	100	70	100	32	100	37	100

Source: Field Survey, 2005

The above table shows the level of left side violation. Left side violation of set back rule is seen in all the four residential areas and the figure is more than 50%. In the two planned residential areas, violation rate is much lower and in unplanned residential areas, maximum house owner are violator because they did not keep adequate space at the left side of the building. Maximum violator kept only 0.5-0.8 meter at the left side of the building.

Table 5.6: Level of violation at the Right side of the building

Left space at the right side of the building		Name of the Residential Areas							
		Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
		No.	%	No.	%	No.	%	No.	%
Violator	0.5-0.8 meter	19	31	22	31	11	34	12	32
	0.8-1.1meter	08	13	10	14	08	25	05	14
	1.1- 1.25 meter	3	5	05	8	02	6	10	27
	Total	30	49	37	53	21	65	27	73
Non-violation	1.25 meter & above	32	51	33	47	11	35	10	27
Total		62	100	70	100	32	100	37	100

Source: Field Survey, 2005

The above table shows the level of right side violation. Right side violation of set back rule is seen in all the four residential areas and the figure is more than 50%. In the two planned residential areas, violation rate is much lower and in unplanned residential areas, maximum house owner are violator because they did not keep adequate space at the right side of the building. Maximum violator kept only 0.5-0.8 meter at the right side of the building.

5.3 Permissible Building Height

Permissible height of the building is determined based on the following formula.

Height = 2 * (road width + setback space from the road edge to building line)

According Building Construction Rules, permissible height is in the following.

Table 5.7: Permissible building height

Building Height (in meter)	Permissible Building Height (in meter)
7.6 to 10.59	9.5
10.6 to 13.59	12.5
13.6 to 16.59	15.5
16.6 to 19.59	18.5
19.6 to 22.59	21.5
22.6 to 25.59	24.5

Source: Building Construction Rules, 1996

Table 5.8: Additional building height according to the rule

Road width of Connecting Side (in meter)	Permissible Building Height (in meter)
4.55 to 7.59	18.50
7.60 to 10.66	27.50
10.67 to 15.24	42.50
15.25 to 22.99	60.50
When road width exceed 23.0 metre the above restriction will not be applicable	

Source: Building Construction Rules, 1996

Application of this set-back rule is illustrated in the following Table-5.9.

Table 5.9: Violation of building height restriction

Standard Road width (including property line) Permissible height			No. of Residential Buildings							
			Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
			No.	%	No.	%	No.	%	No.	%
7.60-10.59 meter	> 9.5 meter	Non- violated	04	6.45	06	9.68	18	56.3	19	51.4
	9.50 meter		06	9.68	02	3.23	07	21.9	03	8.11
	9.50 meter and above	Violated	12	19.4	16	25.8	04	12.5	05	13.5
Total			22	35.5	24	38.7	29	90.6	27	73
10.60- 13.59 meter	Below 12 meter	Non- Violated	11	17.7	12	19.4	03	9.38	06	16.2
	12- 12.5 meter		06	9.68	02	3.23	00	00	02	5.41
	Above 12.5 meter	Violated	07	11.3	06	9.68	00	00	02	5.41
Total			24	38.7	20	32.3	03	9.38	10	27
13.60 - 16.59 meter	Below 15 meter	Non- Violated	06	9.68	13	21	00	00	00	00
	15-15.5 meter		05	8.06	12	19.4	00	00	00	00
	Above 15.5 meter	Violated	05	8.06	01	1.61	00	00	00	00
Total			16	25.8	26	41.9	00	00	00	00

Source: Field Survey, 2005

The above table shows the height restriction with respect to road width in the four residential areas. Maximum house owners followed the height restriction. In the unplanned residential areas Baharampur and Ghoramara, maximum building height is not more than 9.5 meter. For this, the residents are less violator in the two residential areas. More violators are seen in the Padma and Upashahar Housing Estate. Though more violators are existed in the two residential areas, but violation figure is less than 25%.

5.4 Rules and Regulations on the Construction of Boundary Wall of the Residential Building

Boundary wall is also a considerable issue at the time of residential building construction. According to Building Construction Rules, 1996, at the both side supervising of the building, the permissible height of the boundary wall is above 1.75

meter or grill of 2.75 meter height can be constructed. If anyone wants to use grills upon the boundary wall, then the boundary wall cannot be constructed not more than 1.75 meters high from the land. For the beautification of the area, the authorized officer can give the special instructions.

Table 5.10: Violation of rules and regulations of the construction of boundary wall

Height of the boundary wall Residential areas		No. of residential building							
		Padma R/A		Upashahar Housing Estate		Baharampur		Ghoramara	
		No.	%	No.	%	No.	%	No.	%
Above 1.75 meter wall or above 2.75 meter grill		08	12.9	16	22.9	07	21.9	03	8.11
1.75 and below 1.75 meter		12	19.4	14	20	02	6.25	08	21.6
Height from the Land of the boundary wall (with grills)	Less than 1.75 meter	14	22.6	09	12.9	06	18.8	09	24.3
	Within 1.75 meter	16	25.8	15	21.4	01	3.13	06	16.2
	Above 1.75 meter	06	9.68	12	17.1	02	6.25	03	8.11
No wall at all		06	9.68	04	5.71	14	43.8	08	21.6
Total		62	100	70	100	32	100	37	100

Source: Field Survey, 2005

The above table shows height restriction of the boundary wall in the four study areas. Among the two planned residential areas, boundary walls are existed in every house of the study area and only 10% in Padma R/A and 6% in Upashahar Housing Estate houses have no boundary. In the Padma R/A, height of the boundary wall of 13% houses is above 1.75 meter and the house owner of the 13% houses follow this rule of the building construction and 19% house owners violate this rule. In respect of Upashahar Housing Estate, height restriction follower and violator figure is about to same. In respect of two unplanned residential areas, maximum houses have no wall and violation is very lower in Bharampur but in Ghoramara, the violator percentage is much higher. In the Building Construction rules, height restriction again varies with grills on the boundary wall or without grills on the boundary wall. In this category,

maximum house owner follow the height restriction of the boundary wall construction and violation is much lower in all four housing areas. Only 17% violators exist in Upashahar Housing Estate and less than 10% violators exist in rest of the housing areas.

5.5 Rules and Regulations of Constructing Car Parking Facilities

It is very much essential to make option for parking facilities at the time of residential building construction. For this, construction of parking facilities in the residential building requires some rules and regulations. According to Building Construction Rules, 1996, there is sufficient space in every building for car entering to the building and exiting from the residential building. Parking spaces may be covered or without covered. If ramp facilities exist in the parking lot, then it is at least 1:8 roofs and the lot is at least 3 meter far from the road.

Status of the enforcement of rules and regulations of car parking facilities in the four study areas.

I) Padma Residential Area

Padma Residential Area occupies the high income group. The residents who have the car, parking facilities are existed in their houses. Maximum residents having cars of this residential area maintain the rules and regulations at the time of constructing the parking lots. Only few do not have enough space for car parking and they are violator of the rule of building construction. The inhabitants having no car, they do not care these rules and they do not keep any option.

II) Upashahar Housing Estate

Upashahar is the first planned residential area of the city developed in the late sixties in the extended part of the city beyond railway line situated under Ward No. 16. This area is the mixture of higher middle and higher income group. The provision for car parking in the residential buildings is very much lower. A very few have the adequate space for car parking. Among the car owners, 95% inhabitants violated these rules of construction of parking lots.

III) Ghoramara and Baharampur

The characteristics and rule violation scenario is same in two residential areas. Ghoramara and Baharampur both are unplanned residential areas. It occupies middle income and lower income group. The figure of rule followed is very poor in these two residential areas. Only 2% houses have provision for car parking and adequate space for car entering to the house and exiting from the house.

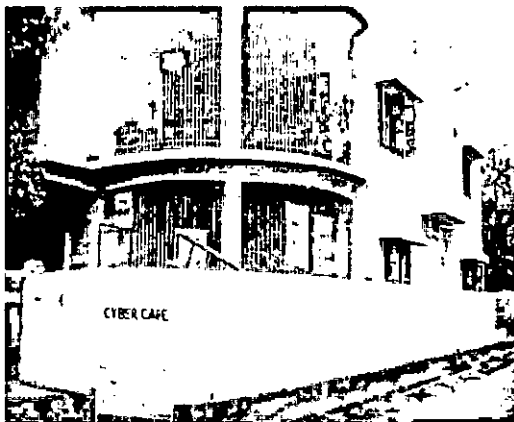
5.6 Lights-Air Circulation Facilities

The standard of light and air circulation is not much detail in the BC Rules and the standard of the Building Construction Rules is in the following.

In every living room of building, doors, windows, fan and lights should be existed for well or smooth circulation of light and air facilities. The kitchen should be positioned at the back wall of the building. Now, the scenario in respect of four residential areas is in the following.

I) Padma and Upashahar Housing Estate

Padma and Upashahar Housing Estate are the two planned residential areas. Mainly higher and higher middle class people resides here. For this, light and air circulation facilities are available in these two residential areas. In only 2-3% houses have inadequate circulation facilities (Source: Field Survey, 2005)



Residential Unit of Padma R/A



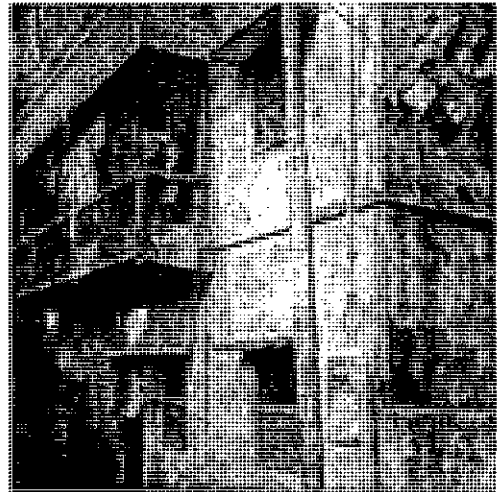
Residential Unit of Upashahar Housing Estate

plate 5.1: Residential unit of well circulation of air and light

Windows and doors of these houses are well positioned for circulation, natural light and air.



Residential Unit of Padma R/A



Residential Unit of Upashahar
Housing Estate

Plate 5.2: Residential unit of inadequate circulation of air and light

Windows and doors of these houses are not well positioned for circulation natural light and air.

Bharampur and Ghoramara Residential Area

Bharampur and Ghoramara are the two unplanned residential areas. The inhabitants of these areas are middle and lower income group. Inadequate light and air circulation facilities as well as well circulation also are available in these two residential areas. The scenario is very much mixing and the figure of the two types is various. (Source: Field Survey, 2005)

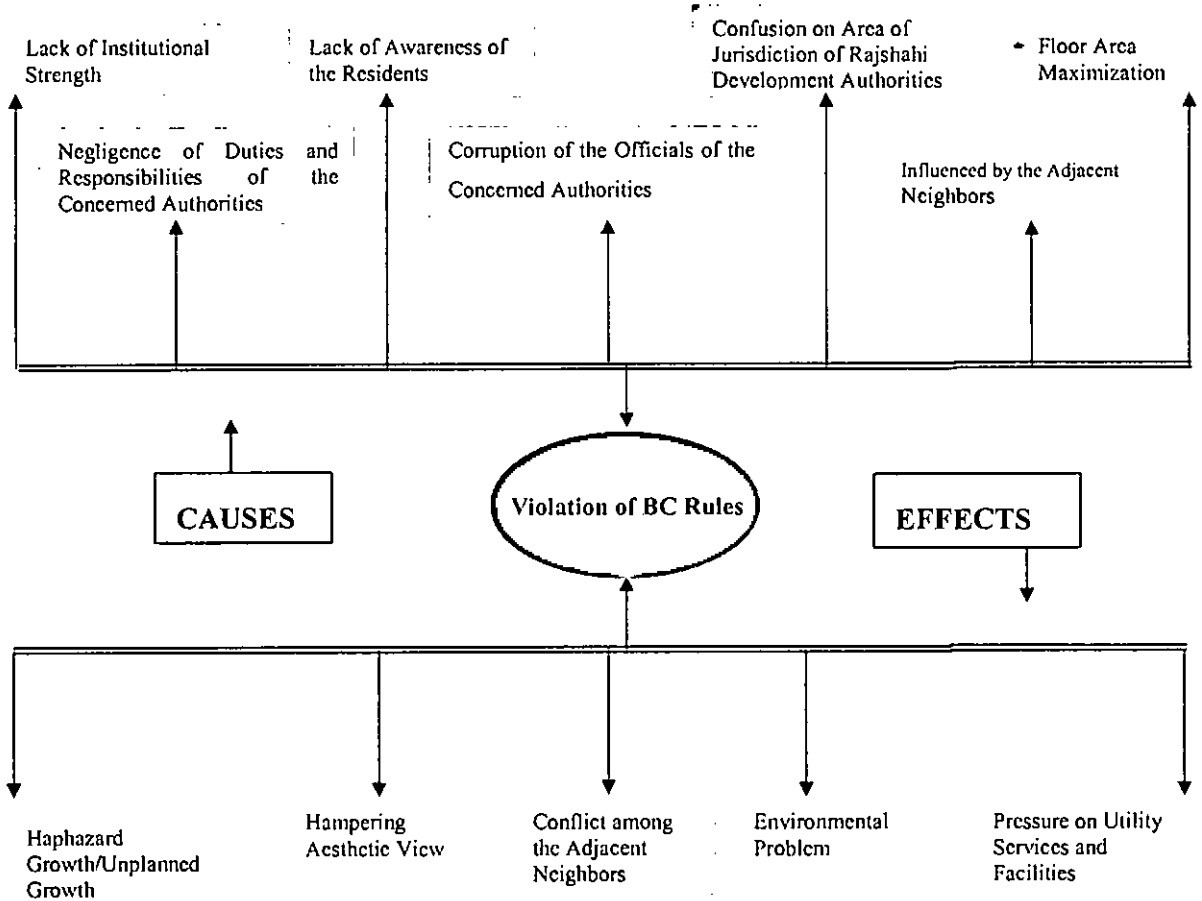
CHAPTER SIX

REASONS OF VIOLATION OF BC RULES AND IT'S CONSEQUENCES

6.1 General

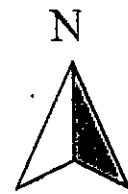
This chapter includes the reasons behind the violation of BC Rules as well as the consequences for this kind of violation. The study digs deeper to find the nature and causes behind the violation of BC rules in residential area of Rajshahi city. In Padma and Upashahar Residential Area most of the buildings have not constructed according to setback rules. This is due to some specific causes like dishonesty of the building owners during construction of buildings and improper inspection by the Authorized Rajshahi Development Authority. About 48% of the completed building in Padma Residential Area and 64% of Upashahar was not constructed according to building construction rules 1984. Different types of setback rules violation were ascertained during this study. For creating a healthy living environment of the city, Rajshahi Development Authority (RDA) has created a planned housing estate with 565 serviced plots at Vodra, named as Padma Residential Area. The project was initiated in 1964. It was totally completed and serviced plots were handed over to the plot owners in 1981 (RDA, 1980). Since the completions of the project over seventeen years have passed, only a few number of plot owners have constructed houses on their plots so far. Total development of the residential area is slow. For long seventeen-year major part this planned residential area remains almost vacant while the housing environment of the unplanned areas of the city continued to be unhealthy, haphazard, and congested.

Figure-6.1: Causes and consequences of the violation of BC rules

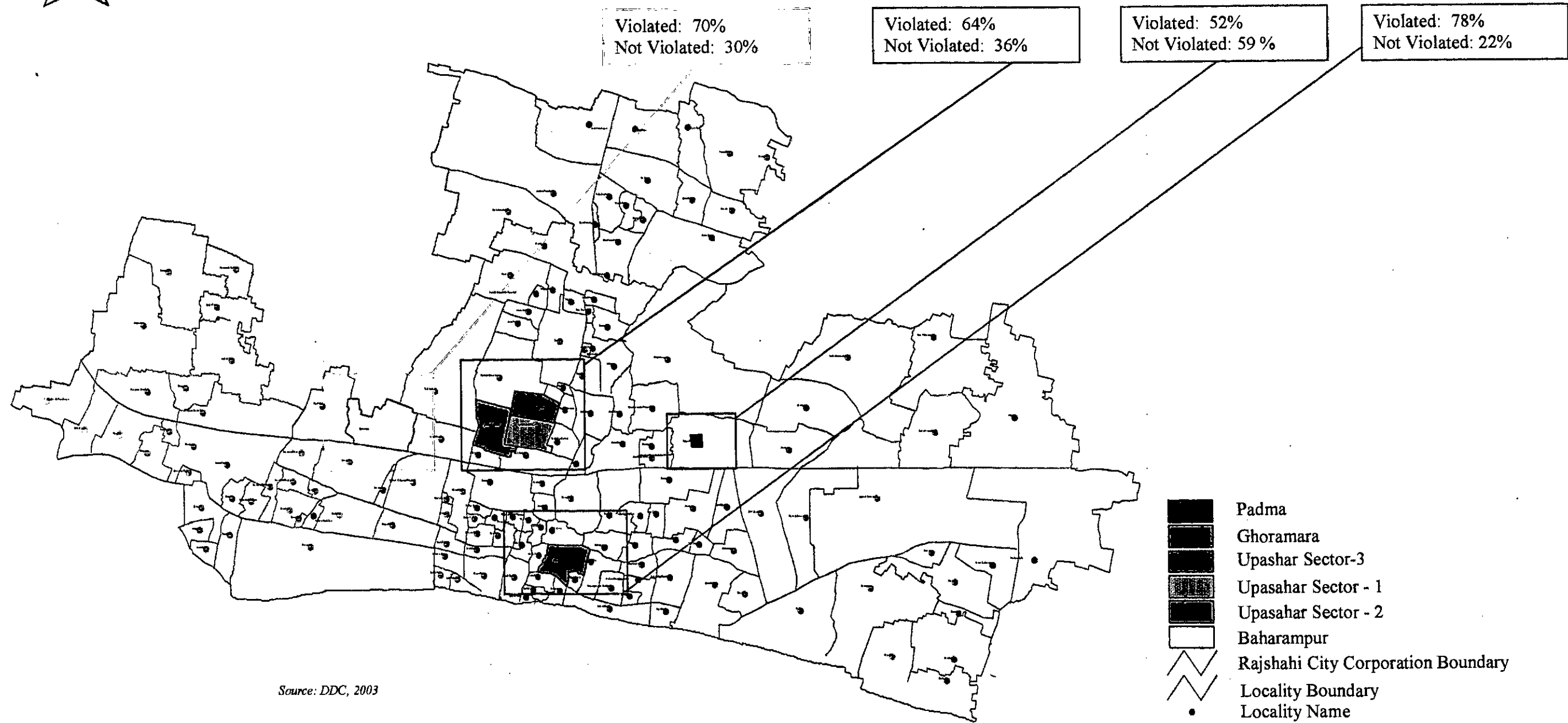


Before going to the detail discussion about the causes and consequences of violation of BC rules here the figure 6.1 shows the principal and common causes and consequences due to violation of BC rules.

Besides the above reasons, there is another important reason for which the inhabitants of the study area violate BC Rules. The reason is that though the National Building Code was formed and published in 1993 it is not made mandatory to follow.



Map 6.1: Percentage of the level of violation



Source: DDC, 2003

90 0 90 180 Kilometers

6.2 Violation of RDA Approved Building Height for Housing Construction

Some houses in the study area constructed more floors violating the RDA approval. A group of corrupted official of Rajshahi Development Authority has helped for such illegal construction.

Table: 6.1 Violation of approved building height

<i>Permitted no. of floor by RDA</i>	<i>Constructed floor</i>	<i>Frequency</i>	<i>Percentage of total</i>
Two storied	Three storied	2	.99
Three storied	Five storied	1	.49
Four storied	Five storied	3	1.49
Five storied	Six storied	1	.49
Total	-----	7	3.48

Source: Field survey, 2005

Among the 201 sample houses in the study area, 7 houses (3.48%) constructed more floors violating the RDA approval.

6.3 Reasons of the Violation of BC Rules

Causes behind the violation of Building Construction Rule are more or less same in the selected residential areas. A large number of violations are seen in the older part of the city that is at Ghoramara. Some of the constructed buildings in Padma Residential Area are not constructed according to setback rule provided by the Government.

Table: 6.2 Percent of responses of dwellers on the reasons of violation of BC rules

<i>Residential area</i> <i>Reasons</i>	<i>Padma</i> (%)		<i>Upashahar</i> (%)		<i>Bahrampur</i> (%)		<i>Ghoramara</i> (%)	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Lack of institutional strength	69	31	56	44	63	37	54	46
Negligence of duties and responsibilities of the Concerned Authorities	64	36	76	24	53	47	49	51
Corruption of the Officials of the Concerned Authorities	61	39	54	46	70	30	53	47
Confusion on Area of Jurisdiction of Rajshahi Development Authorities	82	18	75	25	44	56	56	44
Lack of awareness of the residents	49	51	42	58	74	36	61	39
Influenced by the adjacent neighbors	70	30	53	47	61	39	53	47
Floor area maximization	69	31	49	51	54	46	44	56

Source: Field survey, 2005

It is found that about 5% new owners have entered into the older part of the city by purchasing the land with completed structure that were constructed without considering the BC rules. Various reasons of violation of BC rules are identified in the study. Among the reasons; lack of institutional strength, negligence of duties and responsibilities of the Concerned Authorities, corruption of the Officials of the Concerned Authorities, confusion on Area of Jurisdiction of Rajshahi Development Authorities, lack of awareness of the residents, Influenced by the adjacent neighbors, floor area maximization etc are notable

To build house housing finance is a vital thing. Source of finance (self-finance, loan from relatives, loan from financial institute etc) in the study area are different.

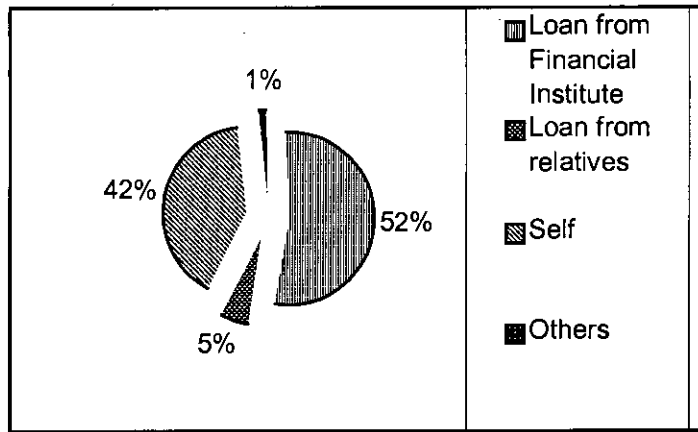


Figure 6.2: Source of financing for the construction

Above graph designates that more than half of the houses of the study area have been constructed by own finance. Few house owners have constructed their houses by taking loan from their relatives. About 52% population of the study area have taken loan from various financial institutions to construct their house. Only 5% populations of the study area have taken loan from their relatives to construct their house. About 42% population of the study area constructs their house with their own income and about 1% population of the study area constructs their house collecting money from other sector.

Large number of violation was found who build their buildings by self-finance. These types of people give bribe to the RDA officials and pass the inappropriate design. In the case of taking housing loan from any institute people usually do not violate the BC rules as finance institute simultaneously monitors the construction.

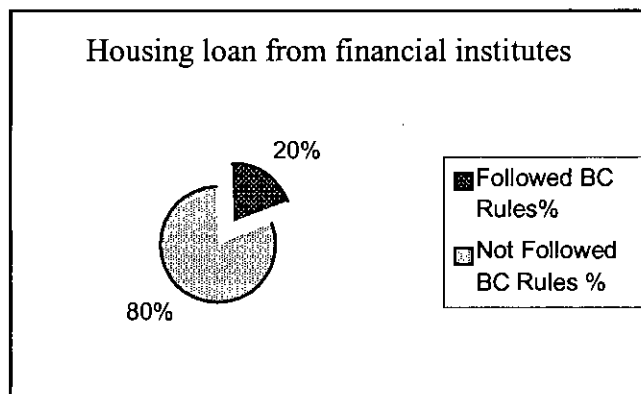


Figure 6.3: BC rule violation though taking housing loan from financial institutes

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Above graph designates that only 20% people who have taken loan from financial institutions did not follow BC rules.

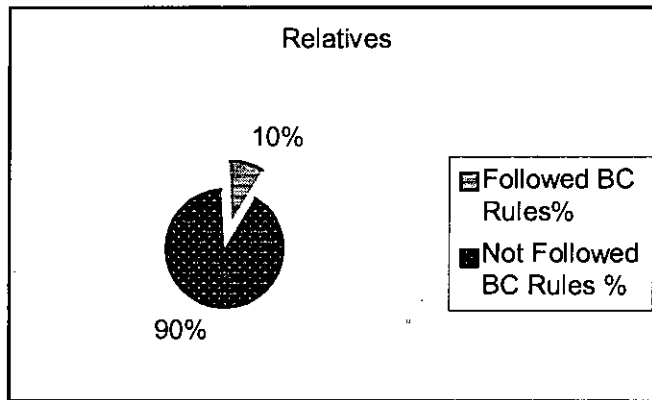


Figure 6.4: BC rule violations by the respondent who take loan from relatives

Above graph implies that 90% people who have taken loan from their relatives did not follow BC rules.

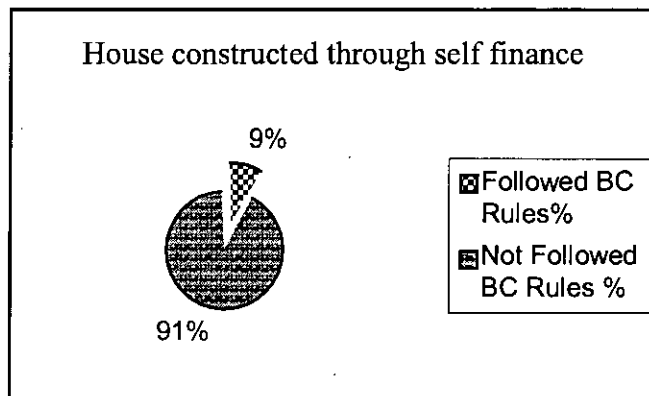


Figure 6.5: BC rule violations by the respondent who construct their house by their own money

Above graph presents that 91% people who have constructed their house with their own finance did not follow BC rules.

6.3.1 Lack of Institutional Strength

There are only two building inspectors in RDA for the whole city and for this reason RDA cannot keep monitoring the new constructions and constructed buildings always. It is really a hard task for the two personnel to maintain the whole city.

6.3.2 Negligence of Duties and Responsibilities of The Concerned Authorities

Rajshahi Development Authority (RDA) and Rajshahi City Corporation (RCC) are two concerned authorities who are responsible to the appropriate implication of Building Construction Rules. For the negligence of duties and responsibilities the responsible persons of RDA and RCC do not always remain strict to the execution of the BC rules.

Table-6.3: Number of visit by RDA officials during building construction

No. of Visit	Percent (%)
Once	15
Twice	6
Never	64
Total	84
No Answer	16
Total	100

Source: Field Survey, 2005

Aforementioned table shows most of the respondents said that inspector did not visit their house at the time of construction. 15 percent said authority visited their house for one time and only 6% said authority visited their house for two times during the period of construction. So it is found that there is a lacking of inspection of the buildings by the authority.

6.3.3 Corruption of the Officials of the Concerned Authorities

The main cause behind the violation of building construction rule in residential area is due to inappropriate checking by the authority during and after construction of the buildings. These irregularities are mainly due to the dishonesty by some official of the authority. They have somehow allowed violating the construction rules. Even sometimes without visiting the building the inspectors submit report to authority.

6.3.4 Confusion on Area of Jurisdiction of Rajshahi Development Authorities

There is no visual demarcation line of RDA's jurisdiction area. People do not understand either they are under RDA's jurisdiction or not. For this confusion they build their houses without any permission from the Authority. Even they do not know is there any necessity of taking permission for permanent and semi-permanent structure. In the fringe area, people are not concerned about BC Rules. This is why they do not follow the rules.

6.3.5 Lack of awareness of the residents

Lack of awareness of the residents is one of the most important reason for which peoples do not follow the BC rules. In the four study areas maximum population do not know about the BC rules.

Table 6.4: Responses of dwellers on the awareness of BC rules

Residential Area	Percentage of Response	
	Know about the BC rules	Don't know about BC rules
<i>Padma (%)</i>	26	74
<i>Upashahar (%)</i>	24	76
<i>Bahrampur(%)</i>	16	94
<i>Ghoramara (%)</i>	25	75

Source: Field Survey, 2005

Above table designates that, in the Padma residential area only 26% populations know about the BC rule and 74% population do not follow the BC rule, in the Upashar residential area only 24% populations know about the BC rule and 76% population do not follow the BC rule, in the Baharampur residential area only 16% populations know about the BC rule and 94% population do not follow the BC rule and in the Ghoramara residential area only 25% populations know about the BC rule and 75% population do not follow the BC rule.

6.3.6 Influenced by the Adjacent Neighbors

In the study area about 20% inhabitants violate the BC rules by the influence of the adjacent neighbors. At the time of construction of their building they had seen that some of their neighbors constructed house without maintaining the BC rules. There neighbors said them that the officials overlooked this matter by taking bribe.

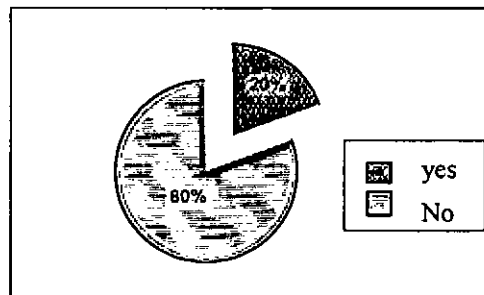


Figure 6.6: Violation of BC rules for the influenced of the adjacent neighbors

Above graph reveals that 80% inhabitant violated the BC rules by the Influenced of the Adjacent Neighbors

6.3.7 Floor Area Maximization

Naturally people want to maximize their floor area to have large floor. They think they can earn more if they can increase floor area even one square feet. When they submit their plan to the authority for approval of the plan they show it as comply with the building construction rules. After getting the approval they construct their building as their requirement.

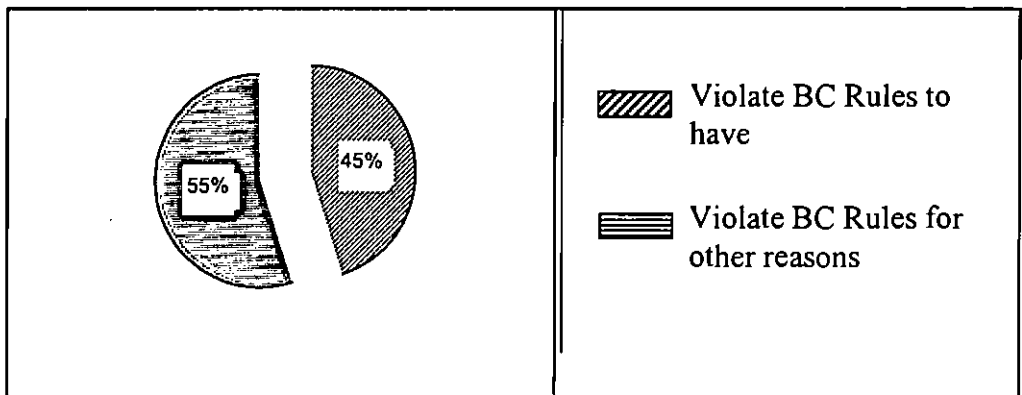


Figure 6.7: Violation of BC rules for floor area maximization

The above figure shows that about 45% of the owners violate setback rules to have larger floor area and other 55% percent violate rule for another reason.

6.4 Consequences of BC rules violation due to the violation of different BC rules

The residents of the area are facing various serious problems. Among them some important consequences due to violation of BC Rules are stated briefly in the following.

Table-6.5: Type of problems faced by the people

Type of Problems	Percent
Environmental	63.4
Social	26.6
Aesthetic	13.2
Lack of utility services	23.8
Total Responses	127

Source: Field Survey, 2005

Various types of problems are associated in the study area. Among them Environmental, Social Aesthetic, Pressure on utility and slow development are notable. More than half of the respondents of the study area faces environmental problem. Among the respondents about 63% response that they face environmental problem in the study area, about 27% response that they face social problem in the study area, about 13% response that they face aesthetic problem in the study area, about 24% response that there are lacking of utility services in the study area.

6.4.1 Haphazard Growth/Unplanned Growth

For the violation of building construction rule haphazard growth is seen in the study area.

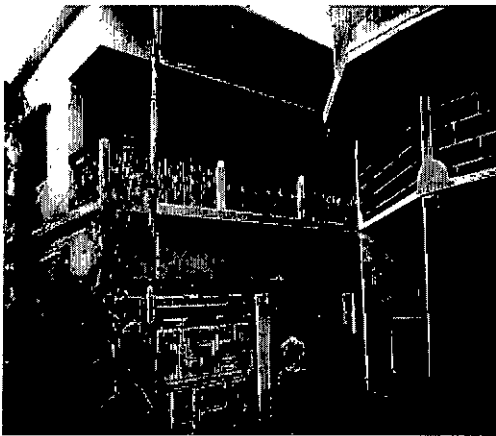


Plate 6.1: Haphazard Building Construction



Plate 6.2: Unauthorized Broken Structure

6.4.2 Hampering of Aesthetic View

Violation of building construction rules leads haphazard growth which hampers the aesthetic view of the study area.

6.4.3 Conflict among the Adjacent Neighbors

For the violation of building construction rule haphazard growths are seen in the study area. For this haphazard growth some houses have very narrow entrance roads. Some houses have not maintained setback rules. The verandahs, balcony and some other parts of the buildings have encroached in the adjacent plots. For these reasons conflict among the neighbors have occurred frequently.

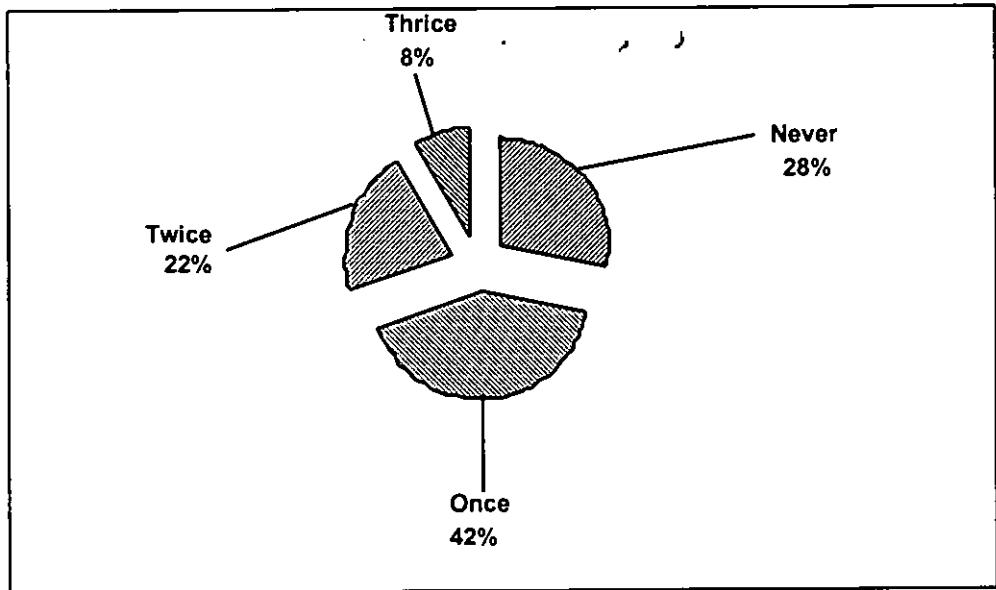


Figure: 6.8 Percentage of conflict among the adjacent neighbors

Above graph implies the percentage of conflicts among the adjacent neighbors. About three fourth inhabitants of the study area had conflict with other neighbors for the violation of BC Rules.

6.4.4 Environmental Problem

Violation of BC Rules is also causing environmental problem. In the unplanned and haphazard densely populated areas people do not get proper air circulation and sunlight. Sun light and air is one of the most important elements of our life to survive. Lacking of air and light may cause some diseases in human body.

Table-6.6: Type of environmental problems faced by the people

Type of Environmental Problem	Percent (%)
Inadequate Air Circulation Problem	55
Insufficient Sunlight	37
No problem	08
Total	100

Source: Field Survey, 2005

Above table reflects that 55% said due to rule violation they face inadequate air circulation as well as 37% of the owners said that they get insufficient sunlight for this reason.

6.4.5 Pressure on Utility and Services Facilities

Extra population creates pressure on utility and services facilities.

Table-6.7: Type of utility problems faced by the people

Utility Problem	Percent (%)
Yes	74
No	26
Total	100

Source: Field Survey, 2005

The aforementioned table designates that 74% respondent said BC rule violation cause's pressure on utility services.

CHAPTER SEVEN
INSTITUTIONAL PROBLEMS ASSOCIATED WITH BUILDING
CONSTRUCTION RULES IN RAJSHAHI CITY

7.1 General

Violation may occur in the different ways in different respects. If ones building plan does not comply with the rules and regulations of the concerned authority as stated it is called violation of rules. The building owners may cause violation by the authority, by the building designers and by the erector. Violations are if, building construction does not follows the building construction rules by the local authority or does not follow Building By-laws or follow setback rules. Sometimes owners follow the building construction rules partially and sometimes they violate rules fully. In the present study building construction rule violation has been classified into two broader classes like Partial Violation and Full Violation. These are described as follows:

7.1.1 Total Violation

Most of the old buildings have been causing this kind of violation. Here total violation means the buildings, which were constructed without any permission or approval of the building plan by the concerned authority. This kind of buildings also does not follow the building construction rules as stated in the books published by the Government.

7.1.2 Partial Violation

This kind of violation is intensively occurring by the building owners. Sometimes concerned person of building construction authority is encouraging people to violate these rules in some cases.

7.2 Institutional Capacity

Institutional capacity is one of the factors causing violation. Rajshahi Development Authority and other relevant organizations or agencies have the power to control the development of this city. But the capacity of these institute is not strong enough to monitor regularly to prevent violation of the BC Rules.

7.2.1 Law Enforcing Capacity of Development Authorities

Following is a brief review of the Rajshahi City Corporation Act, 1987. The review has been carried out in two categories- general and specific.

General Review

In general review some important flaws / limitations of Municipal Corporation Act with respect to proper functioning of urban local governments are highlighted.

a. Limitations to Decentralization

According to population census of 2001 the present urban population is 28.81 million, over 23 percent of the total national population of 123.15 million. Between 1991 to 2001 the urban population increased by 38.02 percent. With the increasing rate of urbanization emphasis is being laid more on urban local governments to play greater role in overall supply of goods and services to urban communities through a process of decentralization of powers and responsibilities. With the increasing trend towards democratization and people's participation in decision making process greater role of local governments are being emphasized. But the current overall process of operation of the urban local governments does not seem to be supportive to transition to decentralization.

b. Weak Local Government

Though Rajshahi City Corporation is a democratically elected local government, its powers are extremely limited to work as a local government. In most cases prior government permission is required before taking any action. *Section- 66, Section-69 (1) and (2), Section- 72 (4), Section-32 (2)* of Rajshahi Municipal Corporation Act are a few examples. This is one of the reasons why there has been little progress in decentralization of governance at local level in Bangladesh.

c. Limited Fiscal and Financial Decision Making Power

City Corporation's fiscal powers are limited by government interference. Most fiscal decisions come from the top. Thus total municipal fiscal and financial management is chaotic and ineffective.

d. Outdated Legal Framework

The existing legal framework (Rajshahi Municipal Corporation Act, 1987) has been found out of date and ineffective with respect to decision-making powers as a local government including financial powers. To quote from a World Bank report, "Many current rules and provisions are no longer relevant to municipal affairs in Bangladesh, and do not provide the flexibility for alternative way to provide services." (World Bank, 1997).

e. Improper Financial Management

Proper budgeting and effective financial management are the key to success of a decentralized system. Though the City Corporation, as part of urban local government system, is said to be autonomous, its autonomy in budgeting decision and implementation have profound limitations. Revenue and expenditure estimates are excessively overestimated. The budget reflects more of political will than the citizen needs and service level goals. The single entry cash account system followed by urban local governments is a reflection of highly ineffective financial management. It does not give complete and accurate annual financial description of the corporation.

Specific Review

a. Power of Appointment

Section-50 of the Act limits the power of appointment by Executive Officer of the employee having salary below Tk.1000. This term is not consistent with the prevailing pay scale. Hence, this section needs revision.

Section-29 does not give clear understanding of the power of the mayor who has been declared executive head of the Corporation by **Section-29 (2)** of the Act.

Functions and Powers of Permanent Committees

Section-32 of the Act empowers the Corporation to set up eight permanent committees for eight different development sectors. But the act does specify the functions and powers of the permanent committees.

7.2.2 Monitoring Efficiency and Frequency

Proper monitoring of building construction is one of the major parts of protection BC Rules violation. Efficiency mainly depends on the skill ness, honesty and sincerity of the personnel engaged in the monitoring work. Frequency is the thing, which can reduce the shortcomings of their skill ness and can ensure the perfection level.

Table-7.1: Rule violation depends on monitoring of construction

Monitoring during construction	Followed BC Rule	%	Not followed BC Rule	%
Monitored	34	47	15	12
Not Monitored	39	53	113	88
Total	73	100	128	100

Source: Field Survey, 2005

7.2.3 Powers of RDA on Other Agencies to Follow /Prepare Plans

Restriction on Improper Use of Land and Buildings. - (1) No owner or occupier of a building shall, without obtaining previous permission from the Authorized Officer or the Committee, as the case may be, use the building for the purpose other than that mentioned in the sanction.

(2) When the government is satisfied that the existing use of any land or building does not conform to the scheme of land utilization indicated in the Master Plan, the Government may, by an order in writing, direct the owner, occupier or the person in charge of the land or building to discontinue such use and, in the case of a building, also to remove or dismantle such building.

Provided, however, that the owner, occupier or the person in charge of the land or building shall be given six months' time before effect is given to the order of discontinuance of such use and twelve months time before effect is given to the order of removal or dismantle of the building.

Provided further that no existing or future use of any land or building for combined residential and commercial purpose shall be discontinued or prohibited unless, in any particular case, such use militates against the dominant character of the scheme of

land utilization as indicated in the Master Plan and constitutes a nuisance generally to the zone and particularly to the neighborhood in which the land or building is situated.
Figure: Boundary wall height

Erection of Wall of Building within a street alignment or building line.- (1) If any person desires to erect, re-erect or add to any wall (exceeding 10 ft. height) or building which falls within a street alignment or building line of a projected public street within the area of a projected open space as shown in any plan sanctioned by the government under subsection (4) of *section 70*, he shall submit an application in writing to the Chairman for permission so to do:

Provided as follows:-

No such application shall be necessary for permission to erect or re-erect, between a building line and the street alignment.-

A porch or balcony, or

Along not more than one-third of the frontage, an out-house not exceeding fifteen feet in height.

(2) The Chairman shall in no case refuse an application submitted under sub-section

(1) if the applicant executes an agreement binding himself and his successors-in-interested to remove, without compensation, any wall or building to which that application relates, in the event of the Authority-

(a) deciding (at any time after an improvement scheme has been sanctioned under section 50 for an area within which such building or wall is situated) that the said wall or building, or any portion thereof, ought to be removed,

(b) calling upon the owner for the time being, by writing notice, to remove the same within a time (not being less than sixty days from the date of the service of the notice) to be specified in the said notice.

Calling (3) if the Chairman does not, within forty-five days after the receipt of an application under sub-section (!), grant or refused to grant the permission applied for, such permission shall be deemed to have been granted.

(4) if the Chairman refuse permission to any person to erect, or re-erect or add to any wall or building as aforesaid which falls-

- (i) within the street alignment, or
- (ii) between the street alignment and the building line of a projected public street, or
- (iii) within the area of projected open space,

The owner of the land on which it was sought to erect, re-erect or add to such wall or building, may call upon the Authority, at any time within three months from the date of such refusal either-

- to pay him compensation for any damage sustained by him in consequence of such refusal, or
- to acquire so much of his land as falls within the street alignment and the building line, or within the open space, as the case may be;

And the Authority shall thereupon-

- in case, make full compensation to the said owner for any damage which he may be found to have sustained in consequence of such refusal, and
- in case, forthwith take steps to acquire the said land:

Provided that, in the case of such land as falls within street alignment only, it shall be optional with the Authority to acquire the same in lieu of paying compensation therefore.

(5) an appeal, if preferred within sixty days of the order of refusal under sub-section (4), shall lie to the Authority on such appeal shall be final.

Section 10 (5) of the Ordinance confers powers on RDA to compel any other authority or agency within the jurisdiction of RDA to prepare their future development schemes in conformity with the general development plan prepared by RDA.

Section 11(2) and (3) empowers RDA to compel any other local authority, government agency, or institution to prepare functional master plans for their respective services / facilities.

7.2.4 Development Control Powers

RTDA Ordinance, 1976, gives RDA the powers of development control within its jurisdiction. This is in addition to the powers conferred to RTDA by the East Bengal Building Construction (EBBC) Act, 1952. Particular features of the development control powers under RTDA Ordinance are reviewed below in short.

Section 25 of the Ordinance empowers RDA to evict an unauthorized occupier (who is not an owner) of a building.

- b. **Section 28** of the Ordinance clearly forbids Purashava (City Corporation/ Municipality) within RDA control area from approving any building plan.
- c. **Section 29** of the Ordinance introduces for the first time, the provision of restriction on filling up of low lands/drainage channels without prior permission of the authority. The government in the year 2000 (Act 36 of 2000) had enacted a new but similar act for nationwide application by the government. RDA Ordinance was advance in this respect. However, it is unknown how far these powers were exercised by RDA.
- d. Though RDA enjoys powers of development control but the relevant provisions of the act do not seem to be complete one. It lacks in detailed rules that form the basis of building plan / low land filling / tank excavation approval. Such rules are incorporated in **Section 18** of the EBBC Act. Without these powers RDA can not effectively apply its development control powers conferred by the RTDA Ordinance.

7.2.5 Resolution of Conflict between RDA and City Corporation

Conflict between RDA and City Corporation often arises on the quality of infrastructure to be handed over to City Corporation after development by RDA. *Section 37 (3), (4), (5),(6)* keeps detailed provisions to mitigate these and other conflicts with the mediation of the Divisional Commissioner.

7.2.6 Penalty for Obstructing Contract or Removing Mark

This is a unique example of legal provision (contained in *Section 50* of the Ordinance) regarding execution of an approved contract or plan. The Ordinance keeps provision of penalty for obstruction on any contract between RDA and any other person for the purpose of the Ordinance. It also keeps provision of penalty for any one who removes any mark set up indicating any level or direction necessary to the execution of work Authorized by the Ordinance or any rule made or development scheme approved hereunder. This provision would help maintain the markings of any street layout proposed in a plan (like, Detailed Area Plan or development scheme).

7.2.7 Preparation of Record of Existing Services, Facilities and Public Properties

Section 9 of the Ordinance offers, for the first time, a unique opportunity to create urban database for Rajshahi, which is highly lacking in government agencies. Effective application of this provision can help create automated database for all kinds of services, facilities including maps and public properties that can be used for research, planning and drawing development schemes by all those who need them.

7.2.8 Detailing of Powers and Responsibilities of Key Officials

Section 32 and *33* of the Ordinance provides details of powers and responsibilities of the Chief Executive Officer and the Chief Accounts Officer of the Authority. These two positions are only supporting staff of the Authority whose responsibilities are to help function the organization smoothly by assisting planning and development functions. However, the Authority is basically a planning and development organization. Planning and development are the key functions of the Authority. But the Ordinance fails to mention anything about the designation and responsibilities of the planning and engineering chiefs of the Authority. This is highly inconsistent with the purpose of the act and reflects biases.

7.2.9 Absence of Provisions Planning Permission

A developer requires land use permission from the Town Planning Department of RDA before submitting plan for approval. Giving land use permission is an important planning function. But the aspect of land use permission is missing in the act. Without appropriate rules and guidelines regarding planning the concerned officials face extreme difficulty in decision making.

7.3 Legislative Instruments for Development Agencies

Here the legislative instruments of the concerned Authority are stated shortly.

7.3.1 Rajshahi Town Development Authority Ordinance, 1976

Town Development Authority Ordinance of Rajshahi City is briefly discussed below:

7.3.1.1 Plan Type and Rajshahi Town Development Authority Ordinance, 1976

The city plan prepared for Rajshahi in 1984 was titled, 'Master Plan' and it was a single plan. But the RTDA Ordinance 1976 makes provision that the city plan for Rajshahi 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, which is a violation of the Ordinance.

7.3.2 Pourashava Ordinance, 1977

Virtually there is hardly any difference between Paurashava Ordinance and Municipal Corporation Ordinance except that of scale of exercise of power with respect to finance. Therefore, discussion on Paurashava Ordinance will not produce any new issues needed to be addressed separately.

7.3.3 Building Construction Rules, 1996

Residential Building Spacing:

1. A residential building shall be constructed at a distance of 4.5 m from the centre of the adjacent road/alley or 1.5 m the site boundary adjacent to the road (whichever is greater).
2. The area of the site covered by the building should not be more than 2/3 of the total site area.
3. The set backspace on the rear and on either side of a proposed building shall follow the following standards depending on size of plots.

Table-7.2: Setback rules for residential use

Sl. No.	Area of the Site	Set back Space from the Rear Boundary	Set back space on Either Side
1.	Upto 2 katha (134 sq.m)	1.00 m	0.80 m
2.	Upto 3 katha (134 sqm to 200 m)	1.00 m	1.00 m
3.	Upto 4 katha (200 sq.m to 268 m)	1.50 m	1.00 m
4.	Over 5 katha (over 268 sq.m)	2.00 m	1.25m

Source: EBBC Act, 1952.

The above rules are not applicable to the following cases:

Row house not exceeding 134 sq. m., Low Income Housing, housing for the low and lower middle income people, with floor space between 25 sq.m. to 100 sq.m. However, back and front space will be 1.00 m and 1.30 m respectively.

CHAPTER EIGHT
SUMMARY OF STUDY, POLICY RECOMMENDATION AND
CONCLUSION

8.1 Summary of the Study

This study reflects the application of Building Construction (BC) Rules on residential building in Rajshahi City. Overall application of BC Rules is not satisfactory in this city. The reasons behind the violation of the BC Rules were investigated in this study. It is found here that both the owners and the concerned controlling authority are equally responsible for improper application of the rules. Though the authority has the power to prevent this kind of violation, shortage of manpower does not allow performing the duty properly. From the owner's point of view, they usually want to maximize the use of their land and get more facilities from their buildings, it is mainly due to the ignorance about the consequences of this violation and it is not understandable to the most of the owners, for this reason this occurrence of violation is growing day by day.

Residential houses in the City area are predominated by semi-pucca, kutcha structure. In Extended Area about 57 percent structures are semi-pucca type and over 40 percent kutcha. About 78 percent of the pucca structures in the city were found to have approval from RDA. Over 93 percent of one story buildings have been found violated their approved building designs during construction.

It was found that there are some Planned Residential Areas where violation of BC Rules is comparatively lower than the unplanned sporadic housing areas. So the authority should emphasize on those areas which are mostly situated on the fringes of the city. Rules violation tendency is found more in the uneducated and low-income groups rather than educated high-income generation.

Most of the buildings that have violated BC Rules have mostly suffered setback catastrophe. In some cases owners did not take permission from the concerned authority to construct their building. It is natural that those who are not taking

approval for Building Construction are creating more problems in the city. Some people also get encouraged for the violation of rules by the adjacent neighbours or other violators.

The way to solve this problem has been also included in the study and recommendation. Necessary steps should be taken not only by the Government but also lay the people who are be more aware of the problems so that it can be they can overcome it.

8.2 Policy and Recommendations

There are the summery of the findings of the present study. Few recommendations have also been incorporated which can be helpful to improve some of the situation/status.

8.2.1 Creating Awareness and Elimination of Ignorance about Building

Construction Act

In many of the cases it is identified that people do not know about the BC Act. As a result many of the house owners do not bother to take permission from the authorities concerned. This is mainly due to the improper use of the Act. Government does not often come forward to publicize the Act. The Authorities concerned (RDA) should take necessary programs, like arrangement of seminar and symposium to create awareness among the people about Building Construction and the law or Act.

8.2.2 Enforcement of Law

There is a good number of Acts and rule's in Bangladesh. But in most of the cases people are not interested to follow those. This has become a common tendency among the general people and even among the lawmakers. During the study it has been found that people also do not bother to take permission or approval due to lack of informations provided by the concerned authority or lack of punitive against the rules violators of rules. The concerned authority should enforce the law so that it becomes effective.

8.2.3 Manpower Development

According to the BC ACT, the process of building construction is to be supervised by the concerned authority in 2 or 3 steps so that the building is constructed according to the approved plan. But in reality this process is hardly followed either by the building owner or by the Authorized Section of RDA. Shortage of manpower in RDA to supervise the Building Construction process is one of the major causes.

8.2.4 Necessary Measures to Handle Corruption

Corruption also hampers proper application of the process. The higher Authority (Chairman) of RDA needs to look into the matter seriously so that the process of BC is maintained. Manpower of the Authorized Section should also be increased for better function.

8.2.5 New Rules for Planning Standard

There are no standards about infrastructure and services and facilities provided in public sector housing plans. However, so far the provisions provided have been on the better side, but there are a potential danger of manipulation without standards and rules. There is need to formulate standard rules for services and facilities and get them incorporated them into the act for public interest. RDA should follow such rules/standards or any other public sector agency engaged in housing land development. The standards should be made public for their safeguard against any possible violation by any development agency.

8.2.6 Community Participation

It needs to ensure community participation for the planned and un-violated construction. Government and various NGOs can increase the awareness of the community peoples by doing various seminars, meetings and workshops so that they can gather information about BC rules and can understand about the necessity of a community organization to deal with this issue.

8.3 Conclusion

In present situation the residents are not facing too many serious problems. But if the violation goes on in this way, it will create a lot of problems in the near future. If in planned residential area the building construction rules are not properly followed during construction, it is uncertain how construction rules will properly be maintained in other areas of the city. The Authorized section of Rajshahi Development Authority should be sincere enough and should take immediate steps for the proper application of Building Construction Rules (BCR) in the city. Along with this each of the building owners should become aware about the Building Construction Rules and should follow it during building construction. Authority has the responsibility to make them able to understand the consequences of violation of BC Rules.

It is expected that this research would be an important document to shed light towards the state of BC rules violation, reasons behind violation and its consequences. It would help to alert the concern authorities as well as residential building owners to follow BC rules and thus to ensure a planned and healthy living in residential areas.

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APPENDIX: A



Plate 1: No distance between electric pole and building



Plate 2: Unauthorized commercial activity in the R/A



Plate 3: Unauthorized commercial activity in the R/A



Plate 4: Front side violation of the building

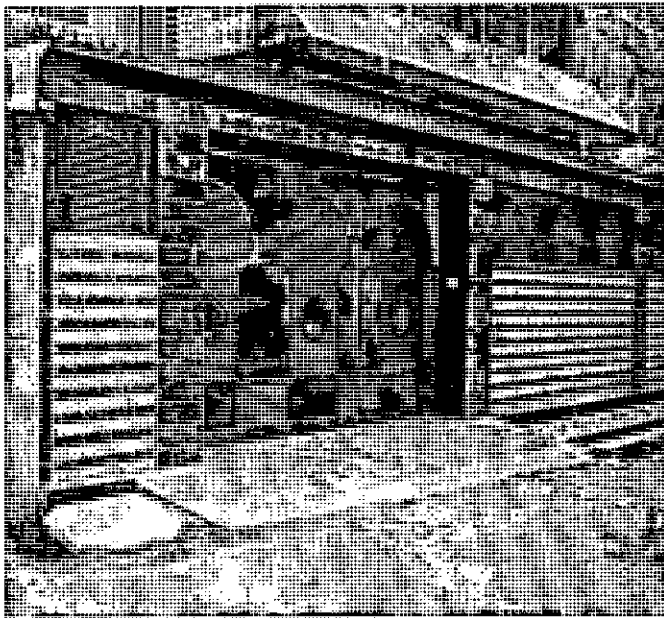


Plate 5: Wall height is more than in the rules

APPENDIX: B

**Bangladesh University of Engineering and Technology
(BUET), Dhaka**

Department of Urban and Regional Planning

APPLICATION OF BUILDING CONSTRUCTION RULES IN RAJSHAHI CITY

Confidential

(Collected information will be used for research and studies)

Questionnaire for Building Owner

Sample No. Name of Interviewee: _____ Date:

1. **Name of the Owner :** _____

2. **Name of the family head:** _____

3. **Address**

4. **Religion** Muslim Hindu Buddhist Christian

5. **Age**

6. **Occupation** Service Business

"If service, service Type" Govt Semi Govt. Private Other
(specify).....

7. **Education** Below SSC HSC Graduate Masters
 Doctor Engineer Diploma

8. **Monthly Income (in Tk)**

3000-5000 5001-7000 7001-10000 10001-15000

15001-20000 20000+

9. **Family Size**

10. **Information about building**

- a. Starting Year of building construction
- b. Plot size (in decimal)
- c. Floor Area (sq. ft) No. of Room No. of
 floor
- d. Did you follow any plan to construct your building? Yes No
- "If yes, was the plan approved by RDA?" Yes No

11. Do you know about any rule required to follow for building construction (BC)? Yes No

"If yes, did you follow the BC rules?" Yes No

"If yes, to what extent did you follow BC " Fully Partially

12. "If, partial violation, Reasons behind partial application or violation of BC"

- i) Inspector not inspect properly
- ii) No monitoring at the time of construction
- iii) No digital monitoring system
- iv) Less strength of the authority
- v) Unwillingness of authority
- vi) Doesn't aware about BC rules
- vii) Building has been bought from other person who did not follow BC
- viii) Grand parents constructed the building
- ix) To avoid waste of land
- x) To have larger floor area
- xi) Other

(specify).....

13. Have you followed same plan for each of the floor in the building (if more than one storied building)?

Yes No

"If No, type of change in upper floor?
 Specify....."

14. Did you take any permission for such change in the upper floor?

Yes No

15. Did you make any extension or re-construction to your building?

"if yes, " i) Year of extension or re-construction

ii) Type of extension/re-construction

Vertical

Horizontal

16. Did you take permission from RDA for extension? Yes No

"If yes," Front Rear Side-1 Side-2

"If no, why?" Don't know No Problem Not Important

17. During construction of your building how many times RDA official visited your to your site?

Once Twice Never Other

(Specify).....

18. After completion of your building construction is it visited by RDA official?

Yes No

19. Building Type Pucca Semi Pucca

20. Foundation for how Many Storeys?

a. Approved no. of storey b. Present no. of storey

21. Floor Area Ratio (EAR)

22. Adjacent Road Width (in ft.)

23. Do you know about setback rules? Yes No

"If yes, how?" By authority By neighbor By book



24. **Did you follow Setback Rules?** Yes No

"If no, why?"

25. **Land Use of the Area** Residential Commercial

Industrial Open Space

26. **Land Type** a. High b. Medium c. Low d. Pond/Ditch

i) Did you cut Hill? Yes No

ii) Did you fill any pond/ditch? Yes No

27 **Purpose of Use of the Building**

Family Residence Mess Office School

Factory Commercial Mixed use

28. **"In case of mixed use, is it permitted? "** Yes No

"if yes, how did you take permission (procedure)?"

29. **Land Ownership way**

Family Source Govt. Gift Purchased

30. **Source of financing for construction.**

Loan from Financial Institute Loan from relatives

Self Others

31. **Do you notice any violation of BC by your neighbor?** Yes No

"If yes, what type of violation, please specify?"

32. **What sort of problem do you face for BC Rules violation by your neighbours or building owners of your community?**

i) Environmental

Inadequate Air circulation problem Insufficient Sunlight Cut trees for building extension

ii) Social

Conflict among the adjacent neighbor

Lack of coordination

Enmity

Other objection

iii) Aesthetic (specify)

iv) Over population

v) Pressure on utility and services facilities

vi) Traffic problem

vii) Slow development

viii) Other problems (if any, specify)"

Signature of the Interviewee

Signature of the Interviewer

APPENDIX: C

THE BUILDING CONSTRUCTION ACT, 1952
(East Bengal Act II of 1953)

[21st March, 1953]

An Act to provide for the prevention of haphazard construction of buildings and excavation of tanks which are likely to interfere with the planning of certain areas in -
²[Bangladesh]

Whereas it is expedient to provide for the prevention of haphazard construction of buildings and excavation of tanks ³[and cutting of hills] which are likely to interfere with the planning of certain areas in ²[Bangladesh];

It is hereby enacted as follows:-

1. Short title, extent and commencement.-

(1) This Act may be called the ^{4*} *Building Construction Act, 1952.

(2) It extends to the whole of ²[Bangladesh].

(3) It shall come into force,-

(a) in the areas to which Notification No. 2306 L.S.-G., dated the 26 th July, 1951, relates, on and from the date on which the East Bengal Building Construction Ordinance, 1951, as enacted and continued in operation by the East Bengal Expiring Laws Act, 1951, ceases to operate; and

(b)" in other areas, on and from such dates as the ⁵[Government] may, by notification in the Official Gazette, direct.

(4) The ⁵[Government] may, by notification in the Official Gazette, withdraw the operation of this Act from any area.

2. Definitions.- In this Act, unless there is anything repugnant in the subject or context,-

(i) "Authorised Officer" means an officer appointed by the ⁵[Government], by notification in the Official Gazette, to exercise in any area the functions of an Authorised Officer under this Act;

1. For Statement of Objects and Reasons, see the Dhaka Gazette, Extraordinary, dated the 3rd October, 1952, Pt. IVA, p. 1740; for proceedings of Assembly, see the Proceedings of the meetings of the East Bengal Legislative Assembly held on the 6th, 30th and 31st October, and 1st November, 1952.

2. The word "Bangladesh" was replaced for the words "East Pakistan" by President's Order No. 48 of 1972.

3. Inserted by E.P. Ordinance IV of 1960.

4. The words "East Bengal" were omitted by President Order No. 48 of 1972.

5. The Words "Government" was substituted for the words Provincial Government, with effect from November 10, 1986, by the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585.

(i) "Building" includes a house, out-house, hut wall and any other structure whether of masonry, bricks corrugated iron sheets, metal, tiles, wood, bamboos, mud, leaves, grass, thatch or any other material whatsoever;

(i) "Committee" means a building construction committee constituted for any area in the rescribed manner;

⁶[(cc) "hill" includes hillocks;]

⁷[(ccc) "master plan" means the master plan prepared and approved under any law for the time being in force for the utilization of any land anywhere in Bangladesh;]

(i) (i) "Owner" in relation to a building or tank, means the person at whose expenses such building or tank is constructed or excavated ⁸[or who] has the right to transfer the same, and includes his heirs, assigns and regal representatives;

⁹ [ii] "Owner", in relation to a hill, means a person who possesses the hill and has the right to transfer the same, and includes his heirs, assigns and legal representatives;]

(i) "prescribed" means prescribed by rules made under this Act;

(i) "tank" includes ditch, drain, well and channel; and

(i) "temporary building" means such building which is declared by the Authorised Officer to of a temporary nature.

3. Restriction on construction of building and excavation of tank.-

¹⁰[(1) Notwithstanding anything contained in any other law for the time being in force, or in any agreement, no person shall, without the previous sanction of an Authorised Officer, construct or reconstruct or make addition or alteration to any building, or excavate or re-excavate any tank or cut or raze any hill within the area to which this Act applies; and such sanction shall be subjected to such terms and conditions as the Authorised Officer may think fit to impose:

provided that such sanction shall remain valid for three years from the date of sanction and on the expiry of the period, the applicant shall have to apply [for] and obtain a fresh sanction.

Clause (cc) was inserted by E.P. Ordinance No. IV of 1960.

6. Clause (cc) was inserted with effect from November 10, 1986, by section 3 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1985.
7. The Words "or who" were substituted, *ibid.*, for the words "and who", with effect from November 10, 1986.
8. Clause (ii) was added, by E.P. Ordinance No. IV of 1960.
9. Substituted *ibid.*, for sub-section (1).

(1a) Notwithstanding anything contained in sub-section (1), all sanctions obtained during the 12 month immediately preceding the 30th September, 1958, shall be deemed to have expired and no such construction or excavation shall be made without obtaining fresh sanction.

Explanation.-For the purpose of obtaining fresh sanction under sub-section (1) or sub-section(1a), no fresh sanction shall have to be obtained for the construction of buildings where the construction has been made up to 4 feet above plinth level.]

(2) The ¹¹[Government] may, by notification in the Official Gazette, direct that the power of an Authorised Officer under sub-section (1) shall be exercised by a committee in such area may be specified in the notification.

(3) When a notification under sub-section (2) has been issued, the Authorised Officer shall not exercise the power conferred on him by sub-section (1) in the area to which the said notification relates.

(4) The provisions of sub-section (1) shall not apply to normal repairs to existing building.

¹²[3A. Restriction on improper use of lands and buildings.-(1) No owner or occupier of a building shall, without obtaining previous permission from the Authorised Officer or the Committee, as the case may be, use the building for the purpose other than that mentioned in the sanction.

(2) When the ¹¹[Government] is satisfied that the existing use of any land or building does not conform to the scheme of land utilization indicated in the Master Plan, the ¹¹[Government] may, by an order in writing, direct the owner, occupier or the person in charge of the land or building to discontinue such as and, in the case of a building, also to remove or dismantle such building.

Provided, however, that the owner, occupier or the person in the charge of the land or building shall be given six months' time before effect is given to the order of discontinuance of such as and 12 months' time before effect is given to the order of removal or dismantlement of the building:

The word "Government" was substituted, for the words "Provincial Government", with effect from November 10, 1986, by section 4 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585.

10. Section 3A was inserted by E.P. Ordinance No. IV of 1960.

11. Explanation was omitted, with effect from November 10, 1986, by the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), Vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987 p. 1585. the Explanation thus omitted was as follows:

'Explanation.- "Master Plan" means the Master Plan prepared and approved under the Town Improvement Act, 1953 (E.P. Act No XIII of 1953), or the Chittagong Development Authority Ordinance, 1959 (E.P. Ord. LI of 1959).

Provided further that no existing or future use of any land or building for combined residential and commercial purpose shall be discontinued or prohibited unless, in any particular case, such use militates against the dominant character of the scheme of land utilization as indicated in the Master Plan and constitutes a nuisance generally to the zones and particularly to the neighbourhood in which the land or building is situated.

¹³[Explanation –omitted]

¹⁴[3B. Direction for removal of construction, etc.-(1) Where it appears to the Authorised Officer or the Committee, as the case may be, that-

- a) any building has been constructed or re-constructed or any addition or alteration to any building has been made, or any tank has been excavated or re-excavated, before or after the commencement of the Building Construction (Amendment) Ordinance, 1986 (Ordinance No. LXXII of 1986),
- b) any building is being constructed or re-constructed, or any addition or alteration to any building is being made or any tank is being excavated or re-excavated,

without obtaining the sanction under section (3), or in breach of any of the terms or conditions subject to which sanction was granted under that section, he or it may, by a notice, direct the owner, the occupier and the person in charge of the building or the tank to show cause, within such period, not being less than seven days, as may be mentioned in the notice, why-

- (i) the building or any portion thereof, whether constructed or under construction, as may be specified in the notice, should not be removed or dismantled; or
- (ii) the tank or any portion thereof, whether excavated or under excavation, specified in the notice, should not be filled up; or
- (iii) further construction or re-construction of, or addition or alteration to, the building, or excavation or re-excavation of the tank, should not be stopped.

12. Inserted, *ibid.*, w.e.f. Nov. 10, 1986.

13. Substituted by E.P. Ordinance No. IV of 1960, for certain words.

14. The word "taka" was replaced for the "rupees".

15. The word "taka" was replaced for the "rupees".

(2) Where a person is asked by a notice under sub-section (1) to show cause why further construction or re-construction of, or addition or alteration to, any building or

excavation or re-excavation of any tank, should not be stopped, he shall stop such further construction or re-construction or addition or alteration or excavation or re-excavation, as the case may be, from the date the notice is served on him till an order is made under sub-section (3).

(3) Where, after considering the cause shown, if any, within the time mentioned in the notice and giving the person showing the cause a reasonable opportunity of being heard, or where no cause is shown within such time, the Authorised Officer or the Committee, as the case may be, after such enquiry, as he or it deems fit, is satisfied that the building has been, or is being, constructed or re-constructed, or addition or alteration to the building has been or is being made, or the tank has been, or is being, excavated or re-excavated without obtaining the sanction under section (3), or in breach of any of the terms and conditions subject to which sanction was granted under that section, he or it may, by an order in writing stating reasons therefore, direct the owner, the occupier and the person in charge of the building or the tank to remove or dismantle the building or any portion thereof or it to fill up the tank or any portion thereof as specified in the order within such time as may be fixed by him [or it] or to stop further construction or re-construction, addition or alteration or excavation or re-excavation, as the case may be; and otherwise shall make an order vacating the notice.

16. Sections 6 and 7 were substituted, with effect from November 10, 1986, by sections 6 and 7 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585. the original sections 6 and 7 were as follows:

'6. **Eviction occupier.**- (1) The Authorized Officer shall, simultaneously with the issue of a notice on the owner of a building under section 4 or sub-section (1) of section 5 issue a notice upon the occupier thereof, if the occupier himself is not the owner, to vacate such building within the period mentioned therein or within such further period as may be extended by the Authorized Officer.

(2) If the occupier does not, in pursuance of a notice issued under sub-section (1), vacate the building within the aforesaid period, he shall, notwithstanding anything contained in any other law for the time being in force, be liable to be summarily evicted therefore by the Authorized Officer; and the Authorized Officer may, in effecting such eviction, use or cause to be used such force as may be deemed necessary.'

'7. **Removal of building by the Provincial Government.**- If any person intentionally fails to comply with any direction for removal of any building given to him under section 4 or sub-section (1) of section 5, within the period fixed there under, the Provincial Government may cause the temporary building or the building under construction, as the case may be, to be removed at its own expenses in which case such person shall not be any more entitled to any compensation.'

(4) Where further construction or re-construction of, or addition or alteration to, any building, or excavation or re-excavation of any tank has been stopped under sub-section (2) and cause is shown within the time mentioned in the notice against the stoppage of such further construction or re-construction, addition or alteration, or excavation or re-excavation, as the case may be, the Authorised Officer or the Committee, as the case may be, shall make his or its order under sub-section (3) within fifteen days from the date the cause is shown.

(5) No order under this section shall be made directing any person to remove or dismantle any building or part thereof or to fill up any tank or part thereof unless it is found that-

(b) such building or part thereof has been constructed or re-constructed, or such tank or part thereof has been excavated or re-excavated at a place or in a manner which is contrary to the Master Plan or Development Plan, if any, of the area in which the building or the tank is situated, or

(c) such building or part thereof cannot be re-constructed or altered, or such tank or part cannot be re-excavated, in accordance with the terms and conditions of the sanction alleged to have been reached, or

(d) such building or part thereof such tank or part thereof causes any undue inconvenience in respect of use or occupation of any land or building or road or passage in the area adjacent to it, or

(e) sanction, if prayed for, could not be granted for the construction or re-construction of, or addition or alteration to, the building or excavation or re-excavation of the tank,

(f) Provided such person-

(i) pays, within the time specified by the Authorised Officer or, the Committee, as the case may be, a fine of an amount, which shall not be less than Tk. , to be determined by that officer or the Committee,

17. The words "or making statements not correct" were inserted by E.P. Ordinance No. IV of 1960.

18. The words "the Committee or any person empowered by him or it" were substituted for the words "any person empowered by him", with effect from November 10, 1986, by section 8 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585.

19. The words "or hill" were inserted by E.P. Ordinance No. IV of 1960.

20. The words "the Committee or any person empowered by him or it in this behalf, produce before him or it" were substituted. *ibid.*, for the words "any person empowered by him in this behalf, produce before him".

(ii) makes necessary addition or alteration to the building, or makes the excavation or the filling up of the tank as may be directed by the Authorised Officer or the Committee within the time specified by the Officer or the Committee, and

(iii) obtains the necessary sanction on payment of a fee which shall be ten times the amount of the fee prescribed.

(6) If a person fails to pay the fine or make the addition or alteration or excavation or filling or obtain the sanction as mentioned in sub-section (5) within the time specified by the Authorised Officer or the Committee, as the case may be, under that sub-section, the said officer or the Committee may, by an order in writing, direct the owner, the occupier and the person in charge of the building or the tank to remove or dismantle the building or an portion thereof or to fill up the tank or any portion thereof as specified in the order within such time as may be fixed by him or it.

(7) A notice or an order under this section shall be served in the prescribed manner.

4. Power of removal of temporary building - The authorized Officer may, by a notice served in the prescribed manner, direct the owner of a temporary building, erected prior to the date of the coming into force of this Act, to remove the same within the period mentioned in the notice or within such further period as may be extended by the authorized officer; and the owner thereof shall, on payment to him of such compensation as the Authorised Officer thinks fair and reasonable, remove it within the period aforesaid.

21. Section 11 was omitted, with effect from November 10, 1986, by section 9 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585. The section 11 thus omitted was as follows:

'11. **Exemption.-** (1) Nothing in this Act shall apply to any building or tank or hill owned by Government.

(2) The Government may, on application made to it, exempt any building or tank or hill from the operation of sub-section (1) of section 5, subject to such conditions as it may think fit to impose.

23. Sub-section (1) of section 12 was substituted by section 10, *ibid.* The original sub-section (1) was as follows:

'(1) whoever commits any offence by-

(a) Contravening the provisions of section 3, or

(b) Failing to comply with the direction given to him by an Authorized Officer under section 4 or sub-section (1) of section 5.

shall, on conviction before a Court of competent jurisdiction, be punishable with a fine which may extend to [ten thousand ** rupees], or in default, with simple imprisonment which may extend up to six months; and the Court convicting the accused shall, if an application in writing is made by the prosecution in this behalf, fix a date within which the building or tank, which is the subject of the conviction, shall be removed or filled up by the person convicted and may, for sufficient reason, extend such date.'

5. Power of removal of building under construction, [etc.].-(1)The Authorised Officer may ,by a notice served in the prescribed manner,¹⁵[direct the owner of the building or tank or hill, the construction or excavation or cutting whereof is in progress].on the date of the commencement of this Act, not to proceed with the work any more and to remove such building within the period mentioned in the notice or within such further period as may be extended by the authorized Office ; and the owner thereof shall, on payment to him of such compensation , exceeding the sum of two hundred fifty¹⁶[taka], as the authorized Officer thinks fair and responsible, remove the same within the period aforesaid.

(2) The provision sub-section (1)shall not apply to normal repairs to existing buildings.

¹⁷[6.Eviction of occupier.-(1) The Authorised Officer or the committee, as the case may be, shall, simultaneously with the issue of an order under section 3B or a notice under section 4 or sub-section(1) of section 5 on the owner, the occupier or the person in charge of the building, as the case may be, issue a notice upon them to vacate the building within the period mentioned therein or within such further period as may be extended by Authorised Officer or the Committee.

(2) If the person upon whom a notice to vacate the building under subsection(1) has been served does not , in pursuance of that notice, vacate the building within the period

mentioned in the notice, he shall, notwithstanding anything contained in any order law for the time being in force, be liable to be summarily evicted there from by the Authorised Officer of the Committee, as the case maybe, and the Authorised Officer or the committee may, in effecting such eviction, use or cause to be used such force as maybe deemed necessary.

24. The words "building of portion thereof [to be removed] or the tank or portion thereof" were substituted for the original words "building to be removed or the tank", with effect from November 10, 1986, by section 10 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 2, 1987, p. 1585.

25. The new sub-section (3) was added, *ibid*, w.e.f. Nov. 10, 1986.

26. Section 12A was omitted w.e.f. Nov. 10,1986, by section 11, *ibid*. Section 12A thus omitted was as follows:

'12A. Notice to offenders before obtaining sanction for prosecution.- Before obtaining the sanction of the Provincial Government for instituting a suit, the Authorized Officer or any persons empowered by him in this behalf may, when he deems fit, serve notice to the offenders to refrain from committing any act or thing contrary to the provisions or this act.'

⁷ [7. **Removal of buildings, etc.**-(1) If any person fails to comply with any direction for removal or dismantling of any building or any portion thereof or filling up any tank or any portion thereof, given to him under section 3B, within the period fixed therefore, the Authorized Officer or the Committee, as case may be, may cause the building or portion thereof to be removed or the tank or portion thereof to be filled up, as the case maybe, by using of causing to be used such force as may be deemed necessary; and the cost thus incurred shall be released from its owner in the manner laid down for recovery of fine under section 386 or the Code of Criminal Procedure, 1898(Act V of 1898)

(2) If any person fails to comply with any direction for removal of any building given to him under section 4 or sub-section (1) of section 5, within the period fixed there for Authorised Officer may cause the temporary building or the building under construction, as the cause maybe, to be removed at his own expenses in which case such person shall not be any more entitled to any compensation.]

8. Application for sanction.- An application for sanction under section 3 shall be made to the Authorised Officer or the committee, as the case maybe, in such manner and form and on payment of such fee as may be prescribed.

9. Cancellation of sanction on breach of terms and conditions thereof.-The sanction granted under section 3 shall be liable to cancellation by the Authorised Officer or the committee, as the case maybe , for breach of the any of the terms or conditions¹⁸[or making statements not correct] under which such sanction was granted.

10. Entry into premises.- (1) For carrying out the purpose of this Act, an Authorised Officer or ¹⁹[the Committee or any person empowered by him or it] in this behalf may, after giving reasonable notice to the occupier of any premises after sunrise and before sunset.

27. Section 13 was substituted w.e.f. Nov. 10, 1986, by section 12, *ibid.*, for the old section 13 which read as follows:

'13. **Cognizance of offence.**- No Court other than that of a Magistrate of the first class shall take cognizance of any offence punishable under this Act except with the previous sanction of the Provincial Government and upon a complaint by the Authorized Officer or by a servant or the Provincial Government authorized by the Authorized Officer or by the Provincial Government in this behalf.'

28. The words and figure "or section 3A" were inserted by E.P. Ordinance No. IV of 1960.

29. The word and figure "or 3B" were inserted, w.e.f. Nov. 10, 1986, by section 13 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585.

(2) The owner of any building or tank ²⁰[or hill] shall, on being required by an Authorised Officer or ²¹[the Committee or any person empowered by him or it in this behalf , produce before him or it] the sanction obtained therefore under section 3.

²²[11.Exemption.- Omitted.]

.12. – penalty.- ²³[(1) Whoever commits an offence by-

(a) contravening the provision of section 3 , or

(b) failing to comply with any direction given to him by an Authorized Officer or Committee under section 3B or by an Authorized Officer under section 4 or sub-section (1) of section 5, shall on conviction before a court of competent jurisdiction, be punishable, with imprisonment for a term which may extend to two years, or with fine, or with both; and the court convicting the accused shall, if any application in writing is made by the prosecution in this behalf, fix a date within which the building or tank or portion thereof in respect of which the offence has been committed shall be removed or dismantled or filled up, as the case may be, by the person convicted and may, for sufficient reason, extend such date.]

(2) If the person convicted under sub-section (1) fails to comply with the direction of the court under that sub-section within the date fixed or within the date as so extended , the court may cause the ²⁴[building or portion thereof [to be removed] or the tank or portion thereof] filled up, and cost thus incurred may be realised from the convicted person in the manner laid down for recovery of fine under section 386 of the Code of Criminal Procedure, 1898(V of 1898).

²⁵[(3) The provision of this section shall be in addition to, and not in derogation of, any other provision of this Act].

30. Section 15 was substituted, w.e.f. Nov. 10, 1986, by section 14, *ibid.*, for the old section 15 which ran as follows:
¹⁵. Appeal.- An appeal, if presented within thirty days from the date of the order appealed against, shall lie to the Provincial Government against every order under section 3 ²⁷[or section 3A] or section 4 or section 5 or section 6 or section 9, and the decision of the Provincial Government on such appeal shall be final and shall not be called in question in any Civil Court.

31. The word "Pakistan" was omitted by President's Order No. 48 of 1972.

32. The word "Government" was substituted of the words "Provincial Government".

²⁶[12 A. Notice to offenders before obtaining sanction for prosecution.- Omitted.]

²⁷[13. Cognizance of offence.- No court shall take cognizance of any offence punishable under this Act except upon a complaint by the Authorized Officer or the Committee or by a person authorized by the Authorized Officer or the Committee, as the case may be.]

14. Bar to jurisdiction of Civil Court.- Every order under section 3 28[or section 3A]29[or 3B] or section 4 or section 5 or section 6 or section 9 shall, subject to the provision of section 15 , be final and shall not be called in question in any Civil Court.

³⁰[15. Appeal.-An appeal, if presented within thirty days from the date of the order appealed against, shall lie to such officer or authority as may be prescribed against every order under section 3 or section 3A or section 3B or section 4 or section 5 or section 6 or section 9, and the decision of such officer or authority or such appeal shall be final and shall not be called in question in any Civil Court.]

16. Public servant .- An Authorized Officer or any person empowered to perform any function under this Act, shall be deemed to be a public servant within the meaning of section 21 of the 31***Penal Code, 1860(XLV of 1860).

17. Indemnity.- (1) No suit or legal proceeding shall lie against the ³²[Government] in respect of any thing which is, in good faith, done or intended to be done, under this Act.

(2) No suit, prosecution or legal proceeding shall lie against any person in respect of any thing which is, in good faith, done or intended to be done, under this Act.

18. Power to make rules.- (1) The 32[Government] may make rules for carrying out the purposes of this Act.

* Special Note as to Savings: "Savings in relation to Ordinance No. LXXII or 1986.- Notwithstanding the Building Construction (Amendment) Ordinance, 1986 (LXXII of 1986), ceasing to have effect at the expiration thirty days after it was laid before Parliament at its first meeting following the promulgation of the Ordinance, anything done, any action proceedings taken, any notice issued, any building removed or demolished, or any person evicted or any appeal presented under the said Act, as amended by the said Ordinance, shall be deemed to have been done, taken, removed or demolished, evicted or presented, as the case may be, under the said Act, as amended by this Act." [This Special Note is the reproduction of section 15 of the Building Construction (Amendment) Act, 1987 (Act No. 12 of 1987), vide the Bangladesh Gazette, Extraordinary, dated March 25, 1987, p. 1585.]

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters:-

- (a) the constitutions of a building Constructions Committee ;
- (b) the tenure of office of members of the Committee ;
- (c) the resignation and removal of members of the Committee ;
- (d) the filling of casual vacancy and the tenure of office of the person filling such vacancy ;
- (e) the regulation of functions of the Committee including the procedure and conduct of business at its meeting ;
- (f) the manner of service of notice under section 4 and 5 ;
- (g) the form of applicant for sanction under section 3 ; and
- (h) the amount of fee payable under section 8.

19. Compensation when not payable .- No owner of any building shall be entitled to any compensation under this Act, if he had contravened any provision of the East Bengal Building Ordinance, 1951 (E.B.Ordi. No. XII of 1951).

***20. Saving .-** Repealed by E:P. Ordinance No : XIII of 1966 .

